

IT UKRAINE

I T S E R V I C E S
A N D S O F T W A R E R & D
I N E U R O P E ' S R I S I N G T E C H N A T I O N

VERSION 1.11
APRIL 2016

2016 EDITION

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FROM A TO Z

About this report

This unique research represents a comprehensive overview of the Ukrainian IT outsourcing and software R&D capacities in 2015. It is structured in seven parts:

- 1: The Ukrainian IT ecosystem**
- 2: The Ukrainian IT outsourcing industries**
- 3: IT outsourcing – Client interviews and testimonials**
- 4: IT outsourcing – Case studies**
- 5: IT outsourcing – Taxation and legal aspects**
- 6: Multinational R&D centers in Ukraine**
- 7: Public policies**

This research is offered free of charge. It will be updated regularly and kept available gratis to all interested parties in order to draw to the vibrant Ukrainian innovation scene the attention it deserves.

Inaccuracies & updates

This is the first issue of the IT Ukraine report. While we have done our best to provide accurate and complete information, we recognize the limits of such industry reporting – and will be pleased to receive any corrections, notices of inaccuracies or information on deals we may have missed.

New and updated data will be included in the next publication, improving the level of detail and the quality of the report. **Please submit corrections, updates and/or suggestions to jane@uadn.net.** Our thanks in advance for your assistance, which will make the next IT Ukraine report an even better resource for the tech community.

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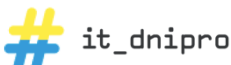
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Table of contents

Key numbers	7
Key findings	8
Forewords	9
Part 1: The Ukrainian IT ecosystem	14
1.1. Introducing Ukraine's IT ecosystem	16
1.2. Technical education	20
• Interview with Vladimir Liulka, CEO of BrainBasket Foundation	23
• UN agency and Swedish IT service company offer IT training to displaced people	25
1.3. Labor market	26
• Interview with Igor Mendzebrovski, EVP Global Outsourcing at Itera	31
1.4. Doing business in Ukraine	34
1.5. Community initiatives	37
• Interview with Nadiya Vasylieva, Head of Microsoft Ukraine	40
Part 2: The Ukrainian IT outsourcing industries	42
2.1. Key figures	43
2.2. Expert analysis	43
• Andrew Garkavy: "One in four top mobile developers has offices in Ukraine."	45
• Kostyantyn Yakovchuk-Besarab: BPO, Ukraine's hidden potential	46
• Alexey Nikolayev: Addressing the internal knots of resistance in outsourcing projects	49
• Alexey Nikolayev: Some common outsourcing issues and how to address them	51
• Eugene Vyborov: The challenges of outsourcing for startups	54
• Jennifer Roberts: How clients and providers can accommodate cultural differences	58
• Alexey Kholodenko : "Our generation is literally obsessed with technical novelties"	63
2.3. Analysis by region	64
Dnipropetrovsk and Central Ukraine	65
Kharkiv and Eastern Ukraine	69
Kyiv and the Kyiv region	74
Lviv and Western Ukraine	82
• Alexander Medovoy: "Far beyond coding, software development now combines technical knowledge, domain expertise and value-added services"	86
• Victor Haydin: "We are shifting away from a classic outsourcing company to a solution-oriented business"	88
Odessa and Southern Ukraine	94
Part 3: IT outsourcing – Client interviews and testimonials	99
• SourceSeek co-founder Dave Hecker	100
• ASG Senior VP Pascal Vitoux	101
• Madberry co-founder and CEO Dmitry Sverdlik	103
• US business management software publisher Matt Gabrielson	105
• Lifeworks App Master Victor Dweck	106
• Currency Cloud VP Engineering Rachel Nienaber	107
• Western video storage solution provider	108

Part 4: IT outsourcing – Case studies **110**

- How disruptive fintech and healthtech startups found expertise in Ukraine 111
- Mature R&D outsourcing model vs. Freelance and remote employee scheme 113
- Korean research institute finds rare mobile OS skills in Ukraine 115
- Discovering the right offshoring formula – after three failed attempts 117
- Enhancing a client’s business model through user interface implementation 119
- Streamlining big data operations and reducing costs for a global audit company 124
- Helping brand lovers “Share a Coke” from Ukraine to Kazakhstan 125
- Outsourcing pure research 127
- A tricky but successful R&D project with a US virtualization security startup 129
- Ukrainian R&D team wins global awards for bioelectrical system against nerve paralysis 132

Part 5: IT outsourcing – Taxation and legal aspects **135**

- Ukrainian taxation regulations in the field of IT services 136
- How to protect your IP rights when outsourcing software development 138
- Signing a contract with a Ukrainian IT service provider 141

Part 6: Multinational R&D centers in Ukraine **143**

- 3.1. Introduction 144
- 3.2. Key facts and figures 145
- 3.3. Interviews and analysis 150
 - How Cisco attracts and leverages Ukrainian tech talents 150
 - Igor Mendzebrovski: 10 top pitfalls to avoid when establishing your delivery center 154
 - Software developer opens internationally-oriented Blockchain R&D center in Kiev 157
- 3.4. International players involved 158

Part 7: Public policies **161**

- 7.1. Ongoing reforms 162
- 7.2. Interviews and analysis 164
 - Interview with Dmytro Shymkiv, Deputy Head of the Presidential Administration 164
 - International expert Phillip Hatch: Should reforms succeed, "Ukraine could export \$275 billion in technology-related goods and services" 168
 - Bohdan Hawrylyshyn: Ukraine should not miss its second chance to become a technological hub 174

APPENDICES

- Appendix A: Software R&D and IT outsourcing companies 178
- Appendix B: Multinational R&D centers 220



Chief editor's note

Adrien Henni

Amid the country's current political and economic woes, the Ukrainian IT service and R&D industry is experiencing a solid growth. Nearly one thousand companies and 90,000 programmers are serving a variety of international clients, while global players operate no less than 100 R&D centers across Ukraine.

Meanwhile, this industry is bringing to Ukraine more than just hard currencies. In the minds of many Ukrainians, technology shines as a promise for highly-skilled and well-paid jobs for the new and the next generations; of the country's stronger integration into the global economy; of improved life conditions in virtually everything from online services, to e-government, to smart homes and cities.

Thus, for many, learning programming or developing an IT-related business goes beyond technological excitement or the appeal of money. They are also aiming to build a new nation. It is not a coincidence that many IT people were building barricades during the Maidan revolution, some of them getting involved in politics since then.

It is a great honor for me to offer my contribution to highlighting this vibrant high-tech scene in the international media. This is the purpose of Ukraine Digital News, the English-language news platform that we launched in 2014.

Our special gratitude goes to the sponsors and advertisers behind this report, who provided us with the means necessary for an in-depth investigation.

May this report, by increasing market knowledge and transparency, become another contribution to supporting the emergence of a technologically-oriented and globally-integrated Ukraine.

Adrien Henni is chief editor at Ukraine Digital News and founder of the EWDN network. He can be reached at editor@ewdn.com

Key numbers

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90,000

IT professionals (#1 in the CEE region)
and 200,000 expected by 2020

1,000+

IT service companies

100+

Multinational R&D centers

\$2.5bn

**Value of software outsourcing
export in 2015** (conservative estimate)

\$60m

**Total earnings by 120,000+
IT-related freelancers in 2014**

Key findings

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UKRAINE'S IT SERVICE INDUSTRY

- Ukraine has the largest number of IT professionals in Central and Eastern Europe (putting aside Russia); its IT engineering work force is expected to double to over 200,000 by 2020.
- Ukrainian outsourcing companies offer a wide range of engineering capabilities, with most companies having already switched to agile development over the past few years.
- The export volume of Ukraine's software development and IT services reached at least \$2.5 billion in 2015, showing double-digit growth year after year. The US market is the main destination with an estimated 80% volume of exported services.
- The country's political turbulence has had little impact on the existing activity of most industry players, but remains an obstacle to stronger growth. The industry has the potential to reach a completely different order of magnitude, given the size and quality of the country's workforce, should reforms succeed and new strong players emerge.
- The English proficiency level among IT professionals has grown significantly over the past few years, but remains lower than that of some other CEE countries.

R&D CENTERS OF GLOBAL COMPANIES IN UKRAINE

- Ukraine is home to over 100 R&D subsidiaries of global companies from a variety of industries, including telecoms, software, gaming and e-commerce.
- A significant part of these global companies entered the Ukrainian market indirectly, through M&As, joint R&D with an outsourcing component, or outstaffing service companies.
- The United States remains Ukraine's largest partner for joint R&D activities (around 45% of the companies involved), followed by EU countries and Israel.
- Kyiv (Kiev) is the most popular location in Ukraine for opening an R&D center, concentrating over half of all such bases in the country. Other key cities for R&D activity include Dnipropetrovsk, Lviv (Lvov), Odessa, Kharkiv (Kharkov) and Vinnytsia.

BUSINESS AND LEGAL ENVIRONMENT

- Over the past year, Ukraine has significantly improved its status in international business venue rankings, while its taxes for IT-related businesses have remained relatively low.
- The current reform effort aims to improve the legal environment; however, certain laws are still cumbersome and legal loopholes remain in the commercial, financial and technological fields.
- IP protection legislation for companies and individuals is expected to be improved by further reforms.

IT UKRAINE FROM A TO Z

F O R E W O R D S



Yevgen Sysoyev

AVentures Capital

Ukraine has a long history of developing innovations that affect various aspects of human life. Among Ukrainians' most spectacular breakthroughs are ones in such fields as aerospace, shipbuilding and computer science.

The Ukrainian IT sector is still at a relatively early stage, but has already established itself as a hotbed of innovation, driven by the largest group of software engineers in all of Europe. It is no coincidence that hundreds of global tech companies have been outsourcing software development tasks to Ukraine, have opened R&D centers there, or are investing in startups founded by Ukrainians.

The primary goals of my firm, AVentures Capital, is to help Ukraine-based startups with talented R&D teams build global businesses and to invest in international startups that want to capitalize on R&D in Ukraine.

People usually expect innovations to emerge much faster than they do in reality, but, at the same time, they also underestimate the magnitude of the transformational impact an innovation can produce. Technological advances born in Ukraine are having a profound impact both on the world's tech scene and in the country's own business, social, and political life.

When we started this research, I already knew a lot of facts about Ukrainian tech and the success stories of Ukrainian IT outsourcing firms in the US and EU markets. But I have still been pleasantly surprised by the findings of this research, which provides solid ground for an optimistic view of this country's future.

I cannot be more excited to watch the unfolding story of the emerging Technology Nation.

Yevgen Sysoyev is co-founder and managing partner at AVentures Capital. He can be reached at ys@aventurescapital.com



Dennis Turpitka

Apriorit

In a country that has long lacked political and economic stability, I have been privileged to work in a sector that has grown with remarkable consistency.

Since I founded my company in 2002, every year has seen more programmers and project managers fill our offices and new clients added to our portfolio – some of them coming from as far away as the United States and South Korea.

It has likewise been a privilege to operate in some of the most fascinating areas of today's information technologies. Our engineers are witnessing, and actively participating in, the newest research in such fields as digital security, virtualization, and cloud computing.

Ukrainian developers are thus laying the foundations of a new Ukraine – a country which I believe has every chance to become one of tomorrow's key IT hubs on the global high tech map.

This report – the first of its kind – provides international audiences with an accurate reflection of these facts and trends. Here readers will find case studies and client testimonials that serve, with complete transparency, as examples of our cooperation with international firms – examples that we feel are truly noteworthy. Let these cases inspire many more market players to build bright and useful technologies around the world.

Dennis Turpitka is founder and CEO of Apriorit, a Ukrainian-based software engineering company. He can be reached at dennis@apriorit.com



Kostyantyn Yakovchuk-Besarab

uSupport

Among the permanent changes that have affected the Ukrainian IT outsourcing industry, three trends may show a strong impact on the industry's future:

- From services to product: many software development companies are considering shifting from a simple pay-per-hour model to other, more complex models of service provision. Developing and selling their own software products and experimenting with a coding-for-equity model are among the options, as was recently demonstrated at industry events such as AgriHackaton and the Media Hack Weekend.
- Smaller cities are likely to play a more important role in the coming years, with large companies from traditional industry centers competing with local enterprises to exploit the HR pool available outside the major cities.
- We may be witnessing the first signs of the emergence of a BPO service sector in the country. Although the Ukrainian offer in this field is still underdeveloped – and companies that actually provide BPO services do not always define themselves as such – this sector could develop significantly thanks to certain domestic and international factors (see article in Part 2).

As an independent initiative grounded in concrete market realities, this report provides industry players and experts with useful data and other valuable information for further market assessments and decision making.

I wish readers every success in the technological and business cooperation that lies ahead for all of us.

Kostyantyn Yakovchuk-Besarab is the founder of uSupport, an online resource about the Ukrainian IT service industry. He can be reached at ky@usupport.in.ua

IT UKRAINE FROM A TO Z

P A R T 1

THE UKRAINIAN IT ECOSYSTEM

KEY FACTS AND FIGURES

1000+

IT companies

100+

R&D centers

2,000+

startups

Key facts about Ukraine



Location:
Eastern
Europe



Population:
45 million



**IT as a share
of national
export:**
4%



Capital:
Kyiv (3 million
people)



Workforce:
22 million



Currency:
hryvnia
(UAH)



Timezone:
UTC +2



**GDP per
capita:**
\$3,900



Top 5 tech hubs:
Kyiv, Kharkiv,
Dnipropetrovsk,
Lviv, Odessa

A long history of tech innovation

The 1st computer in Europe was introduced by Ukrainian Sergey Lebedev

Ukrainian V. Glushkov developed "Promin", the 1st USSR computer for engineering computations

Ukraine's first signal processor for digital signal processing was developed

1951

1961

1964

1975

1976

1988

"Dnepr", the first semiconductor-based multipurpose computer was introduced by Ukrainian V. Glushkov

The USSR's first autonomous transportation robot TAIR was developed by Ukrainian N. Amosov

Designed and assembled in Ukraine, Aircraft An-225 Mriya, the world's largest airplane, made its flight

1.1. INTRODUCING UKRAINE'S IT ECOSYSTEM

Well-known for the abundance of its highly-skilled engineers, Ukraine has become a leading European and global IT outsourcing hubs. In addition to being an outsourcing nation, Ukraine is emerging as a premier R&D destination for many global companies. The country boasts more than a thousand outsourcing companies, including small outsourcing shops, over one hundred national and international R&D shops as well as over two thousand startup companies. In 2015, the export volume of Ukraine's software outsourcing companies reached at least \$2.5 billion.¹

Several IT outsourcing companies originating in Ukraine grew into technology giants with offices worldwide. Among these companies are Ciklum, DataArt, Infopulse, Lohika, Miratech and SoftServe. Impressive is the growth of AOG, an IT service company headquartered in Cherkasy (Central Ukraine), which accounts for 5,000 affiliated freelance engineers less than three years after company launch. At the same time a number of foreign outsourcing companies like EPAM, GlobalLogic, Luxoft have multiple offices in Ukraine, which now stands as a major R&D hub for these global IT service providers. In total outsourcing companies employ more than 50,000 engineers (approximately 60% of all engineers) who live across Ukraine.²

Ukrainian software companies offer virtually every possible software services including, but not limited to, software development, web and mobile development, quality assurance and testing, business process outsourcing, dedicated team outsourcing, research and development services, IT consulting and IT security management. The majority of the country's large outsourcing companies offer full-stack solutions while specializing in a number of industries. Smaller software shops usually focus on a few services like web development and design, mobile app development and testing, working across many industries.



“The share of high-margin R&D and PSD services is increasing in the industry's revenues. Such services may account for 20% of Ukraine's IT export within five years.”

Victor Valeev, director of the IT Ukraine association

Ukraine is gaining importance on the global arena as a developing innovation hub. Such international giants as Aricent, Boeing, Ericsson, Huawei, Oracle, Siemens and Teleperformance, to name just a few, have chosen Ukraine as one of their R&D facilities location; these companies work on innovative products in every known industry, including e-commerce, software, cloud, security, healthcare, financial, transportation, retail, telecommunication and others. Other international companies such as Cisco, HP, Microsoft or Google do not have any R&D centers in Ukraine. Yet they have decade-long relations with leading software developments houses from Ukraine.

Powered by the training and expertise that software outsourcing companies provide, Ukraine also has one of the most rapidly expanding startup communities in Europe. Among these internationally-oriented startups are BPMOnline, DepositPhotos, Grammarly, InvisibleCRM, Jooble, Lookserly (acquired by Snapchat in September 2015), MacPaw, Paymentwall, Readdle, Starwind Software, and others. Some of them, like Paymentwall and Grammarly, have developed into global companies while keeping their main R&D office in Ukraine, where they started. A range of international funds invest in Ukraine including, but not limited to, Almaz Capital, the EBRD, Intel Capital, Horizon Capital, Naspers, along with local players such as AVentures Capital and TA Ventures.

1. This consensual estimate is shared by the IT Ukraine association, the state statistics service, and investment fund Horizon Capital. However, the experts behind this report believe that Ukraine's actual IT service export volume is probably higher. What's more, if judging by the size of the country's population and qualified workforce, there is a considerable untapped export potential, should Ukraine eradicate corruption and better protect IP rights, according to US expert Phillip Hatch (see Part 7).

2. Max Ischenko based on Dou.ua and Djinni.co data

<https://medium.com/@maxua/it-job-market-in-ukraine-2015-in-review-8571f38cde00#.57m3o285g>

PART 1: THE UKRAINIAN IT ECOSYSTEM

In addition to independently-formed startups, the rich expertise of outsourcing and R&D companies often serves as a platform for startups spinoffs and outshoots that originate within big IT companies. Their teams work on initial prototyping separately to establish independent innovative ventures which have a strong technical team and a proof-of-concept.

Even though Ukraine's IT sector has seemed so far little affected by the economic and political turmoil, if not immune, its considerable growth potential is unlikely to be fully realized until the situation stabilizes and the business environment improves.

After the Maidan revolution in 2014, the IT community has mobilized itself with this perspective in mind with several IT entrepreneurs starting political careers. Meanwhile, lobbying and civic initiatives blossomed. Six IT clusters were formed in Lviv, Odessa, Kharkiv, Kyiv, Dnipropetrovsk and Lutsk to foster regional development, while the BrainBasket foundation, a non-profit initiative, initiated massive IT training plans for students, recent graduates and professionals looking to change industries.

Much pressure has been put on the authorities to make themselves more accountable – a goal which has partially been reached through several e-government initiatives, – reform the legal and tax systems, fight corruption, put an end to the administration's arbitrary methods, modernize the education system, etc.

The government seems well aware of the importance of the IT sector for the country's modernization and global integration, yet much remains to be done to bring the current reform effort to fruition.

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UKRAINE IN INTERNATIONAL RANKINGS

Outsourcing rankings



Outsourcing Market
in Eastern Europe



In CEE by the number of
engineers and number 4
globally



In CEE by outsourcing
volume



Global innovation rankings



Most Innovative
Countries



In Science and Technology



Most Master Level
Certified Nations



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1.2. TECHNICAL EDUCATION

1st in CEE

by the number of graduates
entering the labor market

Source: UNCTAD

402

universities
and colleges

Source: ministry of education

100%

population
literacy rate

Source: World Bank

Ukraine’s technical education is the foundation of Ukraine’s IT ecosystem. Every year the country graduates over 150,000 of students, among which 36,000 are with degrees in technical studies,³ including some 15,000 IT specialists.⁴ Ukraine’s army of more than 90,000 IT professionals⁵ makes the country a leader in Central and Eastern Europe by the number of engineers and the number of graduates emerging into the labor market.

With its obsolete, theory-heavy curriculum and frail government funding, Ukraine hardly boasts a modern educational system. What Ukraine does have, however, is a deeply-rooted tradition in technical education. The country still needs more government investments to modernize university curriculums and equipment, fund research labs and introduce more international exchanges with world-leading universities. A number of steps have been taken in the right direction, including the introduction of standardized tests and a reduction in corruption levels, but the current situation still leaves to be desired.



Founded in 1898, Kyiv Polytechnic Institute is a leading university in the Ukrainian capital

3. Including all the country’s higher educational establishments or academies as well as scientific research institutions.
Source: Ministry of Education of Ukraine.

4. According to IT Ukraine

5. Dou.ua and Djinni.com: "IT job market in Ukraine: 2015 in review"

PART 1: THE UKRAINIAN IT ECOSYSTEM

That being said, industry players and NGOs have taken active steps in educating and graduating more computer science professionals. Thus the BrainBasket Foundation aims to train 100,000 new IT professional by 2020 and to turn the IT sector into the number one export industry of Ukraine (from what is currently the third).⁶ The foundation is launching 100 learning hubs all over Ukraine to train IT professionals of all levels. Not only does this initiative help meet a growing demand for Ukrainian technical talent, but it also provides new professional training and job opportunities for refugees from Eastern Ukraine.

Additionally, the IT communities of almost all big regional cities are offering courses to teach more IT specialists. These are attended by many young people as an alternative or complementary to the university course load, as well as by professionals looking to make a switch from their existing career to IT. Some examples of such private initiatives include LITS in Lviv, Ukrainian IT School in Kharkiv, SkillsUp in Dnipropetrovsk, GoIT in Kyiv, and ITStep in every large city.

A significant portion of the country's graduates enter the IT labor market each year. With the IT sector expanding, Ukraine anticipates computer science and IT to be among the most popular career choices for graduates in the near future.

6. IT Ukraine and EBA, "IT Industry: Developing Ukraine's Economy and Talent," Nov. 2015

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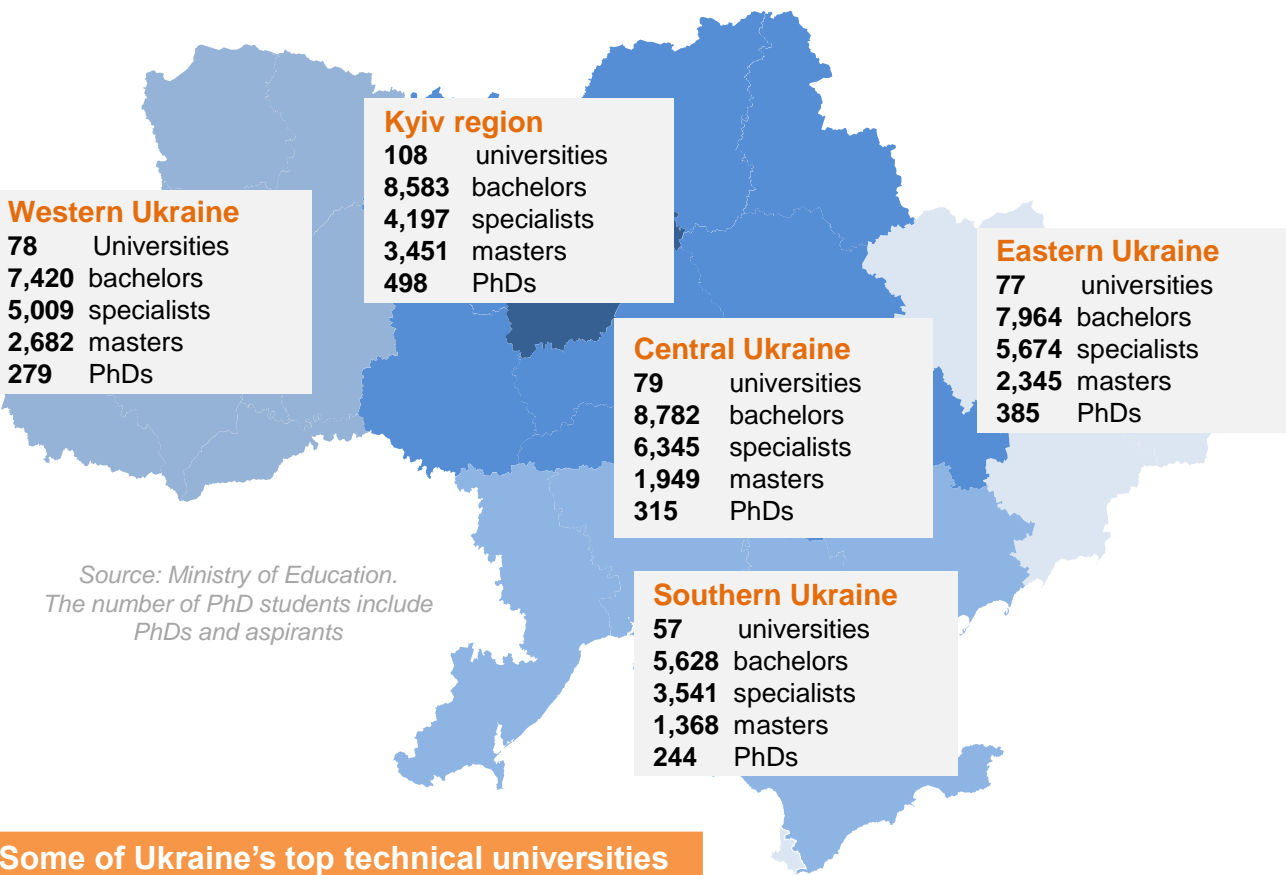
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UKRAINE’S EDUCATIONAL SYSTEM IN FIGURES

Number of graduates with technical degrees (2015)



Some of Ukraine’s top technical universities

1	National University Kyiv Polytechnic Institute
2	Kharkiv Polytechnic University
3	Lviv Polytechnic National University
4.	Donetsk National Technical University
5	National Aviation University
6	Odessa National Polytechnic University
7	Kharkiv Aviation Institute
8	Vinnitsia National Technical University
9	Kharkiv National University of Radio-electronics
10	Dnipropetrovsk National University
11	Odessa University named after Mechnikova
12	Sumy State University

Total graduates with technical degrees (2015)



28,122
bachelor students



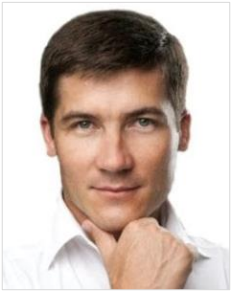
9,294
master students



1,360
PhD students

Sources: Rankings by Forbes.ua, Ain.ua, Dou.ua, Osvita.ua

Source:Dou.ua Salaries report 2015



Vladimir Liulka, CEO of the BrainBasket Foundation: "The Ukrainian technical education system needs to be modernized"

Founded in 2014, the BrainBasket Foundation aims to develop IT education in Ukraine. It is sponsored and supported by such major IT companies as Ciklum, Intel, Invisible CRM, MacPaw, Microsoft and Upwork, as well as the Kyiv municipal authorities and the Ministry of Education. In this interview, the foundation's CEO Vladimir Liulka shares his vision of the issues and prospects of Ukraine's technical education system, and explains the goals of his organization.

– What are the foundation's short term and long-term goals?

At BrainBasket we think that Ukraine is uniquely positioned to become the world's "brain basket," exporting IT products and services created by local IT professionals. Thus our goal is to make the IT industry a driving force behind the country's economy by training over 100,000 new IT specialists by 2020.

The scope of the project is quite broad with a number of initiatives. One of these is School Boost, which aims at popularizing the IT profession among school students while ensuring that schools have enough resources to provide high quality IT education. Recently we have agreed with the ministry of education to host an "Hour of Code" in all Ukrainian schools, using the famous Scratch methodology to introduce students to an hour of computer programming in a fun and interactive way.

Another project we have launched is our monthly BrainBasket Talks. We invite prominent IT personalities to share their experience and thoughts on the current and future trends of the IT industry.

But our biggest initiatives are Coding for the Future, which has already started, and Technology Nation, which we plan to fully launch in the early spring of 2016.

– Why do you need to train 100,000 more IT specialists in a country that seems to have a solid high technical education system?

Firstly, Ukrainian technical education is good for theory but it generally lacks the practical dimension. While government funding is insufficient, this void is currently being filled by the private educational centers. To increase the number of competent IT professionals both in theory and practice, the education system needs to be rebuilt with more modern curriculums and teaching methods as well as more private education initiatives.

Secondly, by 2020 we expect to have a shortage of 900,000 developers in Europe, and of five million in the world. Thus, we would like Ukraine to become a country not only with one of the largest technology forces in the world, but also with one of the highest quality. That would help Ukraine attract new investments and hit the IT export target of \$10 billion by 2020; up from some \$2.5 billion per year currently.

– Tell us a bit about your projects.

Coding For the Future is a project aimed at providing refugees from Eastern Ukraine with the coding skills they need to retrain themselves for the IT profession. We encourage every refugee or ATO participant to join us and study absolutely free of charge. With BrainBasket we are demonstrating that the best way to help these people is to give them the opportunity to enter a new and promising profession and thus open the gates to a successful life. The plan is to teach such popular programming languages such as java, php, c# and javascript.

PART 1: THE UKRAINIAN IT ECOSYSTEM

The Technology Nation program aims to educate more than 120,000 people using fundamental programming courses from world's leading technical universities in a two-year term (2016-2018). English language won't be an issue since most of these courses will be available in Ukrainian (for instance Ukrainian online-education platform Prometheus is already translating the Harvard Computer Science courses).

The course is structured as a series of online and offline lessons. The offline part is necessary to minimize the dropout rate. Participants will come to 80 hubs across Ukraine and work in groups with a teacher. The government has agreed to give us access to over 1,000 teachers to conduct English classes. Participation in the program is absolutely free, with classes expected to start on March 1, 2016.

In the immediate future we also plan to launch online courses on the Internet-of-Things, Big Data and a range of other specialized courses. Let these projects become a contribution to transform Ukraine into a technology nation.

– What have been the key challenges that your organization has faced?

The initiative, launched in spring 2014, went through a team overhaul and reemerged this year with a new team of five, who have already accomplished a lot. A wide network of volunteers is also supporting us.

We also have a clear vision of what needs to be done. Right now we are gathering three essential component groups : IT specialists who are ready to teach as volunteers ; companies to provide donations, facilities and screens; and highly motivated candidates to launch study groups. However, our biggest challenge remains ensuring continuous financial support for scaling the initiative and hiring additional people next year.

– What is the budget of the foundation?

We do not have a budget, but rather a target for attracting investments. Last year we raised \$100,000, most of which came from Torben Majgaard, founder and CEO of Ciklum. Everything we raise, we reinvest in our activity. Our target for next year [2016] is to raise \$1 million.

– What guarantees of transparent use of the funds does BrainBasket offer to its sponsors?

We are a public organization with serious and responsible people on the Supervisory Board, including well-known and respected businessmen, politicians and professionals. Each of us cares a lot about our reputation both within and beyond Ukraine. In addition, we follow the reporting standards for NGO-type of organizations rigorously. Currently, we are incorporated as an NGO in Ukraine and plan to apply for the same status in the US next year.

(December 2015)



UN agency teams up with Swedish IT service company to offer IT training to displaced people in Ukraine

The United Nations Development program (UNDP) has launched 'Frontend-developer,' an IT training program intended for internally displaced people (IDPs) in Ukraine.

Supported financially by the Japanese government, this program provides IT training to IDPs from Crimea, a peninsula annexed by Russia in 2014, and the war-torn areas of Eastern Ukraine.

The program is being implemented by Beetroot AB, a Swedish outsourcing service company operating in Ukraine.

The trainings are offered free of charge with no requirements of previous experience or knowledge in IT, and no age restrictions. In addition to basic web development skills, the 4-month program includes English lessons, self-presentation techniques and career advice.

After completing the courses, each student will be offered an internship in IT companies to get a first working experience.

In total 60 students — including 30 in Odessa and 30 in Poltava — started the training program in December 2015.

"The previous experience and qualifications of displaced people rarely correspond to the needs of the labor market in their new locations. Meanwhile, there is a strong demand for qualified specialists in the IT field. By acquiring new skills, the graduates of our program will become competitive on the labor market and find new, well-paid job more easily," stated Ruslan Fedorov, project manager at UNDP's program IDPs in Ukraine.

"Since its foundation, our company has been driven by a social vision, the desire to be part of building up the Ukrainian economy and increase this country's connections to Europe. Being here during the whole political turmoil created even stronger emotional bonds to this country, leading us to launch our first educational initiatives in 2014," said Beetroot CEO Andreas Flodström.

"This UNDP program will leverage our know-how in a way that will truly help where it is most needed. We are impressed with the level of talent we have seen among the applicants and feel that many of them will be able to start a new career in the IT field. The UNDP and the people of Japan deserve gratitude for creating this opportunity for a brighter future," the Swedish entrepreneur added.

Since 2012, Beetroot has been specializing in building and running teams of developers and designers who work remotely for European and US clients. A 'Beetroot Academy' started in September 2014 with support from the Swedish International Development Cooperation (SIDA), aiming to help young Ukrainians build a career in what has remained a thriving industry in spite of the political and economic instability in Ukraine.

Around 40 students have since then graduated, of which 70% had found a job in an IT company as of late 2015.

(December 2015)

1.3. LABOR MARKET

1.3.1. LABOR AVAILABILITY AND RELEVANT SKILLS

1st in CEE

by the number of
engineers

Source: Colliers International, 2014

22.17m

labor force

Source: Index Mundi, 2013

90,000

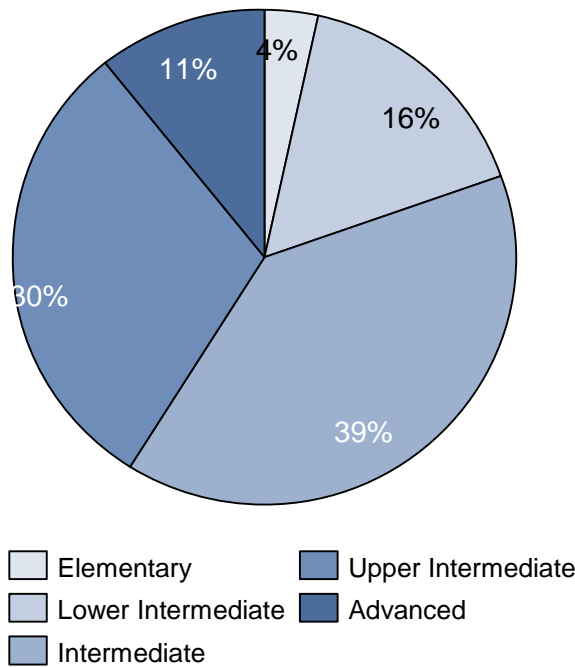
IT developers
and testers

Source: Dou.ua

Ukraine offers the largest IT labor force in Europe. It is the only sector of the Ukrainian economy that has shown immunity to political and economic fluctuations, and demonstrated steady growth in number of jobs and competitive salary level over the past decade. About 60% of all engineers work for outsourcing companies and a quarter of them work for top 25 software companies.⁷

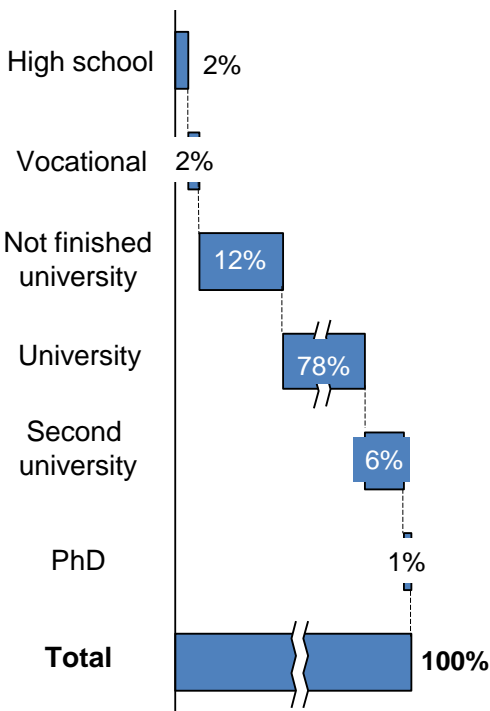
IT professionals in Ukraine as a class receive one of the highest salaries (\$1,600 net of tax monthly is a country average)⁸ and form a basis for the expansion of the Ukrainian middle class. Those factors further stimulate the interest of Ukraine's younger population in this profession, resulting in a rapidly-growing number of IT engineers in Ukraine.

IT professionals' English proficiency



Source: Dou.ua Salaries Report 2015

IT professionals' education level



Source: Dou.ua Salaries Report 2015

7. Dou.ua and Djinni.com: "IT job market in Ukraine: 2015 in review »

8. <http://jobs.dou.ua/salaries/>

PART 1: THE UKRAINIAN IT ECOSYSTEM

Demographically speaking, IT professionals in Ukraine are one of the youngest active population groups, with 80% of them being under 30 and 25 being the most common age.⁹ Over 75% of Ukrainian IT professionals have a university level degree and over 6% pursued a Masters or PhD.¹⁰ The level of English proficiency among the general population is moderate and is catching up with most European countries.¹¹

Eighty percent of Ukrainian engineers, however, have an intermediate or higher level of English working proficiency – and this percentage is expected to grow in the future. Professional or technical English is being taught in every school, university and college as well as in many private IT schools as part of their programming curriculums.



“There are a number of locations that offer a motivated and cost effective labor pool. However, if you need to successfully solve a complex technical challenge or turn-around a distressed project, Ukraine is your destination of choice.”

Valeriy Kutsyy, CEO of international outsourcing provider Miratech

1.3.2. SALARY LEVELS

The following three trends are observed in the current Ukrainian tech labor market:

- Hiring activity is picking up compared with 2013 and 2014
- Salaries have flattened out but are still paid in USD
- Many engineers are looking to relocate to other countries.

Anna Stetsenko of Indigo, a tech recruiting agency with eight years of experience in Ukraine, confirms these trends: “In 2013/2014 many companies slowed down their hiring efforts and were proactively seeking for plan B options that often included relocating parts of the offices to other locations. In 2015 we saw the market regaining its strength and stability. The panic is over, hiring activity is up and we see an increasing number of investment opportunities coming to Ukraine. However, many engineers would still consider moving to Western economies if they had an opportunity.”

The average salary of Ukrainian IT professionals has grown significantly in the past four years in USD terms, and has flattened or slightly decreased for some positions in 2014 and 2015. The average software engineer salary across and regions came to \$1,600/month (\$10/hour) in 2015.

In 2015, the salary of project managers fell within \$2,000 – \$4,000 monthly while that of quality assurance managers was comprised between \$500 and \$2,100 monthly.

9 and 10. <http://jobs.dou.ua/salaries/>

11. <http://www.ef.nl/ept/>

PART 1: THE UKRAINIAN IT ECOSYSTEM

The financial and economic instability in 2014-2015 had no significant impact on the number of IT jobs, which continued to grow. This was due mostly to the following factors:

- The demand for Ukrainian IT talent exceeds the supply by approximately 1.8 times.
- Most clients of Ukrainian IT firms are situated in the USA and Western Europe.
- IT salaries in Ukraine are usually agreed on USA dollars and paid in Ukrainian hryvnia based on the current exchange rate, thus eliminating the risk of currency fluctuation.
- The military conflict was contained to a small percentage of Ukrainian territory (3%) and did not hit most IT firms. Those influenced managed quickly to move their operations to another city.

The salaries are highest in Kyiv with regions usually paying 15-30% less for same positions. However, according to Indigo recruiting firm, the salaries for most senior technical position are similarly expensive across the country.

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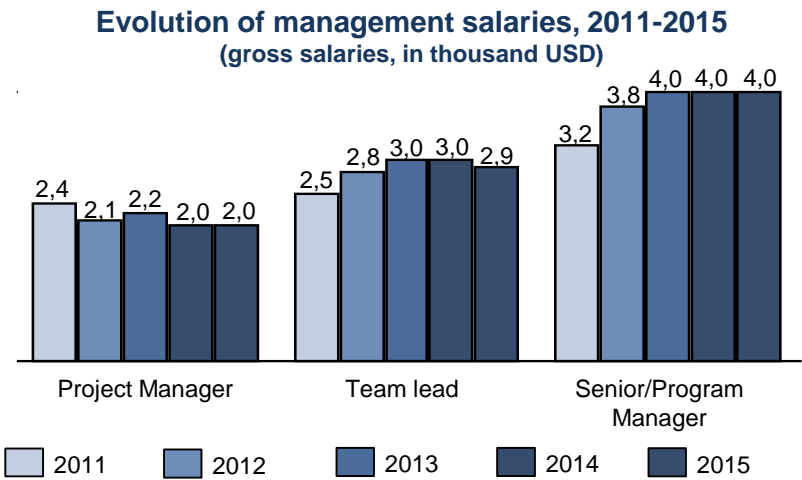
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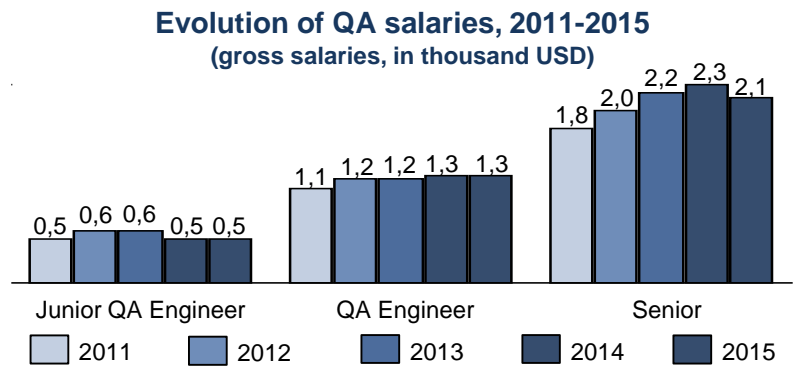
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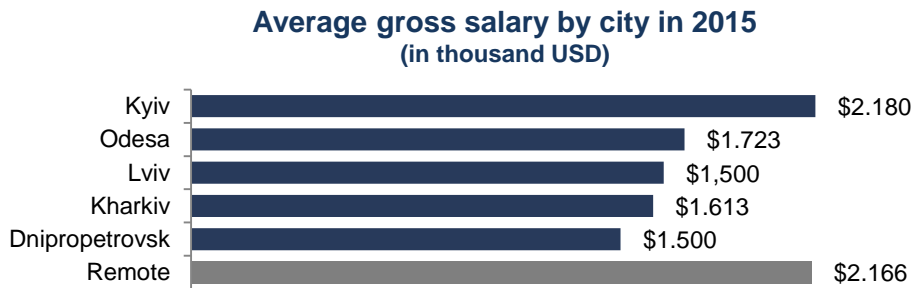
AVERAGE SALARIES AND THEIR EVOLUTION



Source: Dou.ua Salaries Report 2015



Source: Dou.ua Salaries Report 2015



Sources: Lviv IT Cluster (Lviv); Dou.ua and Djinni.co (other areas)

1.3.3. TYPICAL ENGINEER PROFILE AND COMMON HIRING PRACTICES

A professional’s salary level depends on level of experience, education, skill set and the size of the employing company. Below are listed the average salaries across Ukraine.

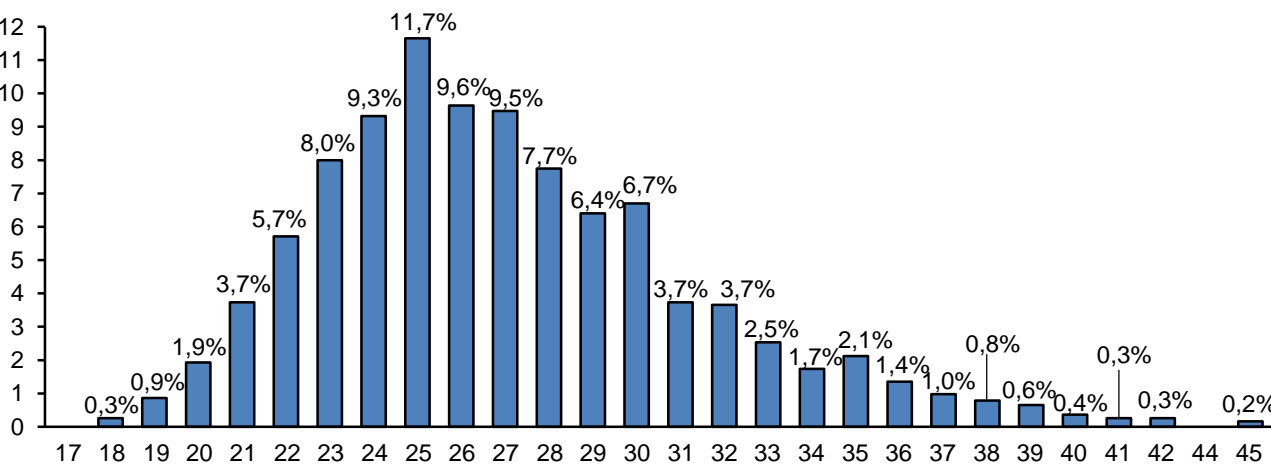
Average gross monthly salary in 2015 (in USD)								
	Java	Java Script	C#/.NET	C++	Obj. C	PHP	Python	Ruby/Rails
Jr. Software Engineer	630	625	650	900	700	400	650	700
Software Engineer	1,750	1,700	1,800	1,500	1,800	1,500	1,800	1,600
Sr. Software Engineer	3,300	3,000	3,000	2,800	3,200	2,700	3,000	3,500
Software Technical Lead	3,800	3,900	3,100	3,500	3,300	3,200	3,500	4,500
System Architect	4,275	5,000	4,500	4,000	N/A	3,500	3,800	N/A

Source: Dou.ua

Ukrainian engineers are skilled in most modern languages, frameworks and databases. According to Anna Stetsenko of Indigo recruiting agency, it is hard to name the most wanted tech skills. “Many skills are in demand including, but not limited to, Python, Java, Mobile, .net engineers. What the market is short of are business analysts, data scientists and digital marketing professionals with global market experience”.

The typical contract with a Ukrainian engineer usually involves a monthly paid salary, two weeks to a month vacation time, up to two months of severance in case of job cuts while bonuses and equity grants remain rare in non-product tech companies. Due to the fact that the tech market is extremely dynamic and competitive, companies should prepare for longer periods of position closing. “If a few years ago it was possible to close a position in three weeks, now it takes up to three months for senior level developers,” states Ms. Stetsenko. “As the demand for Ukrainian engineers exceeds supply several times, companies should be ready to offer compelling fringe benefits in addition to salaries such as convenient office spaces, flexible working schedules, food in the office and, most importantly, interesting projects.”

Age distribution of Ukrainian engineers, 2011-2015



Source: Dou.ua



Igor Mendzebrovski of Itera: “The industry is switching from extensive to intensive phase in HR operation and management”

As co-author of the Ukrainian National Education Standard and visiting lecturer at the National Aviation University, Igor Mendzebrovski, EVP Global Outsourcing at Itera, has facilitated Ukrainian IT education for more than 10 years. Despite the IT boom in Ukraine and a high demand for resources, he understands that current graduates lack practical skills and so invests a lot of effort into developing them both inside and outside the company. In the following interview, Igor describes the challenges of developing effective IT professionals, and how he and others are contributing to their training and professional growth.

– The Ukrainian IT market is growing rapidly. How does this situation correlate with the quality of IT education in Ukraine?

Theoretically, the Ukrainian IT talent pool is extremely skilled. As stated in The Global Competitiveness Report 2014 - 2015, Ukraine was 30th (out of 144) globally and 1st in Eastern Europe in terms of the quality of education of the people employed in the IT and communication technology fields. However, the problem is that our graduates from IT universities lack practical knowledge, which is crucial to our industry. The reason for this is that teachers lack practical experience, and we need more IT professionals from outsourcing and product IT companies to come and teach students real-life cases and new technologies.

Another issue is that because the Ukrainian IT market is still in its formation stage, there is no clear gradation of IT specialists and their competencies. This means that the skills of a mid-level specialist in one company may not correspond to that of the same level in another.

– You co-authored the National Education Standard and a lecturer. What do you personally teach?

I was invited as a visiting lecturer to the National Aviation University. My contribution to the National Education Standard involved adding program engineering to the list of obligatory courses. When students come to Itera for my classes, they learn how to set up business processes, how to organize work in a team, and how to outsource a project or a group of people. Students become more mature and get the necessary practical vision. The most promising graduates get their first job at Itera.

– What are the career prospects like at your company? Do your employees have clear vision for their professional development?

At Itera, we determine employees' skills based on an in-house career development plan, the '3D Career Concept.' Our HR team created it using such internal instruments as the Performance Evaluation System, which measures the level of employee competencies; and the Training System, which is the primary tool used for continual educative and career advancement. Itera conceptualizes each of our current and future employees as having a number of technical, soft, and management skills, as well as the ability to work internationally. We help each person develop different skills while they work:

- Technical skills: trainings, conferences, paid certifications, participation in IT communities, etc.;
- Soft and management skills: extensive training program for newly assigned managers, BizTalks;
- International skills: cross-cultural communication trainings, foreign language instruction.

This concept gives value not only to organizations, in the best use of internal resources, but also to employees who get to develop their skills; and customers, who receive better quality services. The main distinction of this concept is a switch from cost-saving objectives to long-term value benefits built from the outsourcing model.

PART 1: THE UKRAINIAN IT ECOSYSTEM

Value is given not only to organizations, maximizing their use of internal resources, but also to employees who are given the opportunity to develop their skills, and to customers, who receive better quality services. The main distinguishing characteristic of the 3D Career Concept is a switch from cost-saving objectives to long-term value benefits built from the outsourcing model.

– Why are soft and international skills important?

Usually in outsourcing processes, you communicate regularly with people who have different visions and cultures. For example, Itera is a Scandinavian company with nearshore delivery centers in Ukraine and Slovakia, and we communicate with our Norwegian colleagues every day. Success in any job requires transparency in communication. That includes being polite, having the ability to clarify tasks, ensuring on-time delivery, and knowing when escalation is needed, as well as whom to contact in such situations.

– How does the 3D Career Concept correlate with a quality of education?

In IT industry we face a transition from an extensive to an intensive phase in human resource operation and management. The extensive approach proved inefficient due to growing overhead, while intensive came to utilize human resources more efficiently by growing their soft and international skills. This approach allows more competencies to be extracted from existing resources due to proper internal education, which is king of a best-working outsourcing model.

Mr. Mendzebrovski can be reached at Igor.Mendzebrovski@itera.no

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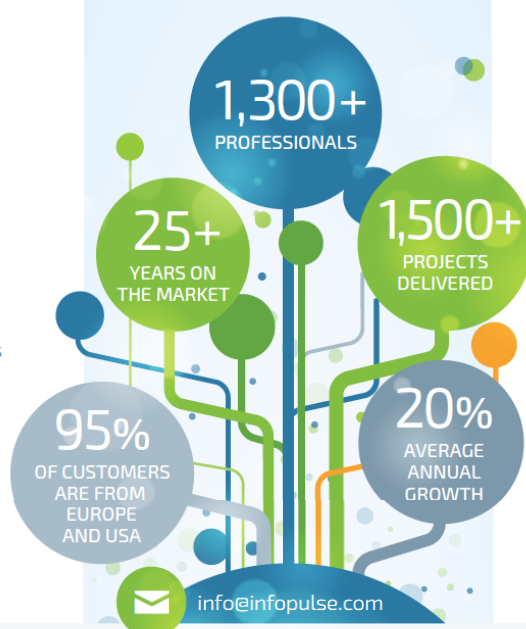
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1.3.4. UKRAINE COMPARED WITH NEIGHBORING COUNTRIES

	Ukraine	Poland	Czech Republic	Bulgaria	Belarus	Slovakia
Labor force	22m	18.5m	5.3m	2.5m	4.5m	2.7m
Ease of doing business* (out of 189 countries)	83	25	36	38	44	29
Ease of starting a business** (out of 189 countries)	30	85	93	52	12	68
Living Costs*** (New York = 100)	19	25	27	21	29	29
English Proficiency****	Moderate	very high	high	n/a	n/a	moderate

Sources: *, ** World Bank, “Doing business 2016. Measuring Regulatory Quality and Efficiency. Ranking out of 189 countries” – *** Numbeo Cost of Living Index 2015 – **** EF English Proficiency Index 2015

Although weaker on English proficiency and ease of doing business, Ukraine’s core advantages are its big labor (including engineering) workforce as well as its competitive salary range. Ukraine has become one of the cheapest countries to live and operate a business in following the hryvnia’s dramatic fall against the dollar in 2014-2015. The salaries of IT professionals start at \$400/month, those of QA specialists at \$300/month, while those of project managers may be above \$1,000/month.

Ukraine’s cost of living is the cheapest in Europe according to Numbeo Index, taking into account consumer goods and rent price level. At the same time, the country has improved the ease of starting a business this year by reducing business registration procedures and eliminating business registration fees. Today the country ranks 30th in the world, up from 89th last year.

While there are cheaper outsourcing destinations like India, Philippines or China, Ukraine provides a superior price/quality ratio.

While there are cheaper outsourcing destinations – like India, the Philippines or China – Ukraine provides a superior price/quality ratio. Not only are Ukrainian engineers generally skilled at business process outsourcing and quality assurance services, they are also able to solve complex technical problems in which deep expertise and innovative approaches may be required. Ms. Stetsenko of Indigo tech recruiting agency describes a typical engineering profile as “very young, IT is his hobby, he likes the challenge of solving difficult problems and offering creative solutions.” Thus on top of traditional IT services, a number of Ukrainian companies offer extensive high tech R&D services as well as develop and commercialize their own products. In addition, many western and Ukrainian startups make use of Ukraine’s outsourcing capacities for initial product prototyping and testing.

A range of managerial, cultural, political and economic factors, as well as Ukraine’s legal and tax systems are further analyzed in the section “Pros and Cons of Doing Business in Ukraine”.

1.4. DOING BUSINESS IN UKRAINE

1.4.1. TAXATION

Ukraine's taxes for the IT sector are comparatively lower than in most developed countries (see article by Deloitte in Part 6). The vast majority of company employees and almost all freelancers are hired as independent contractors – a framework which provides substantial tax and easy reporting, benefiting both companies and employees. Under such agreement, the employer does not pay taxes on salaries and the employee pays a fixed rate of only 4% of his or her earnings. VAT does not have to be paid either.

But the picture is darkened by high levels of corruption in government structures and the sluggish bureaucratic tax reporting regime. "The Ukrainian taxation regime (fixed tax for independent contractors) is a kind of a compensation for all the disadvantages and risks of Ukrainian regulations, governmental practices, and poor or overregulated laws, which result in additional costs to companies and employees," says Taras Dumych of law firm Wolf Theiss, LLC.

For the Ukrainian IT sector to continue displaying promising growth and to keep IT companies and talent in Ukraine, more favorable conditions for doing business should be created, including the simplification of the tax reporting system, industry players argue.

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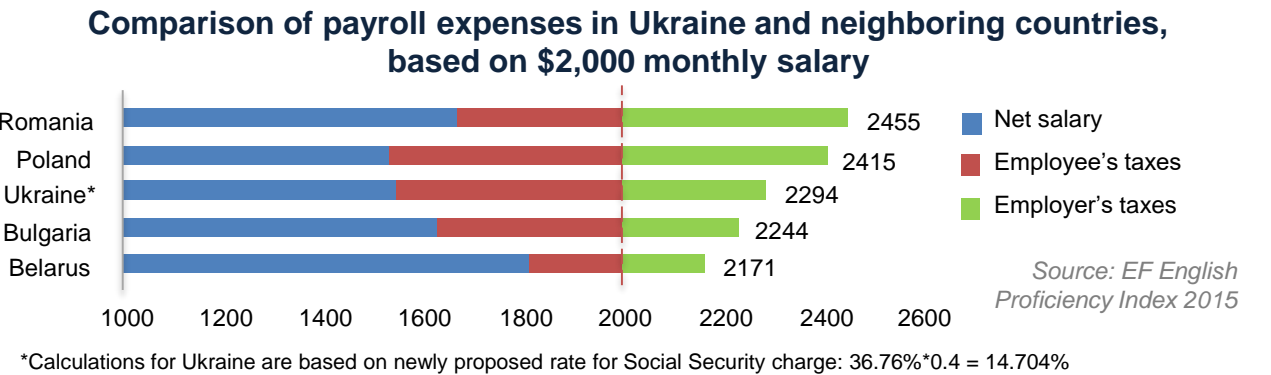
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1.4.2. PROS AND CONS OF DOING BUSINESS IN UKRAINE

According to the World Bank Group, Ukraine ranks 83rd out of 189 economies in the world by ease of doing business in 2015 – a 16-point improvement compared to the previous year. For starting a business, Ukraine ranks 30th, ahead of Bulgaria (52), Slovakia (68), Poland (85) and the Czech Republic (93). While some government bodies, like Ukraine’s broken legal system, need to be redesigned, others function in a satisfactory way and already present potential benefits when compared with neighboring countries.

Pros	Cons
<ul style="list-style-type: none">▪ Ukraine has the cheapest and largest engineering labor force in Europe. Average developer salary is \$1,600 (see Section 1.3.2). Manufacturing wages are at \$1.2/hour, twice lower than China▪ Lowest operating costs in Europe▪ Ease of recruiting and laying-off employees in the absence of strong legal restrictions or trade unions▪ Highly educated population (100% literacy rate), strong presence of higher educational establishments (317 colleges and universities)▪ European mentality▪ No-visa regime and easy work permit regime for foreigners from most countries▪ Favorable geographic position for globally operating business. Ukraine is one-hour flight away from Poland, 2 hours from Germany, 5 hours from Dubai, 9 hours from New York or Beijing▪ The individual income tax is at 18% with most independent contractors paying only 4%▪ Well-developed and developing IT infrastructure, with a fast-growing innovation ecosystem.	<ul style="list-style-type: none">▪ As of late 2015, the country was experiencing significant political and economic challenges after the recent revolution and geopolitical crisis in the region. However, the military conflict was contained to only 3% of Ukrainian territory in the eastern part of the country▪ High level of corruption across most government bodies. However, some progress has been noticed since the 2014 revolution▪ Cumbersome legal entity registration and closure laws▪ Legal loopholes in commercial, financial and technological fields▪ Little efficient IP protection legislation for companies and individuals. However, legislation is to be harmonized with EU rules (see Section 1.5 and Part 6).▪ Except VAT exemption for software development service companies, IT companies and startups do not enjoy tax breaks (see Part 6)▪ Cases of arbitrarily-led tax police inspections in IT companies (see Section 1.5)



PART 1: THE UKRAINIAN IT ECOSYSTEM

1.4.3. INDUSTRY PLAYERS ON DOING BUSINESS IN UKRAINE

“Eleks has been constantly growing since its establishment in 1991. Of course, our growth has slowed down due to the recession – but it has not stopped. Our operations and delivery have been stable, we have not experienced any significant change in the volume of works for our existing customers – we even see some growth here. Furthermore, new customers keep coming in.”

Victor Haydin, Head of Products and Services, ELEKS

“In 2015 we saw the market regaining its strength and stability. The panic is over, hiring activity is up and we see an increasing number of investment opportunities coming to Ukraine.”

Anna Stetsenko, Head of Indigo IT recruiting agency

“We see that the reforms that were promised a year and a half ago are not taking place as fast as we would like. I mean the investors, but also what the whole of the Ukrainian people want.”

Penko Dinev, Head of IBM Ukraine

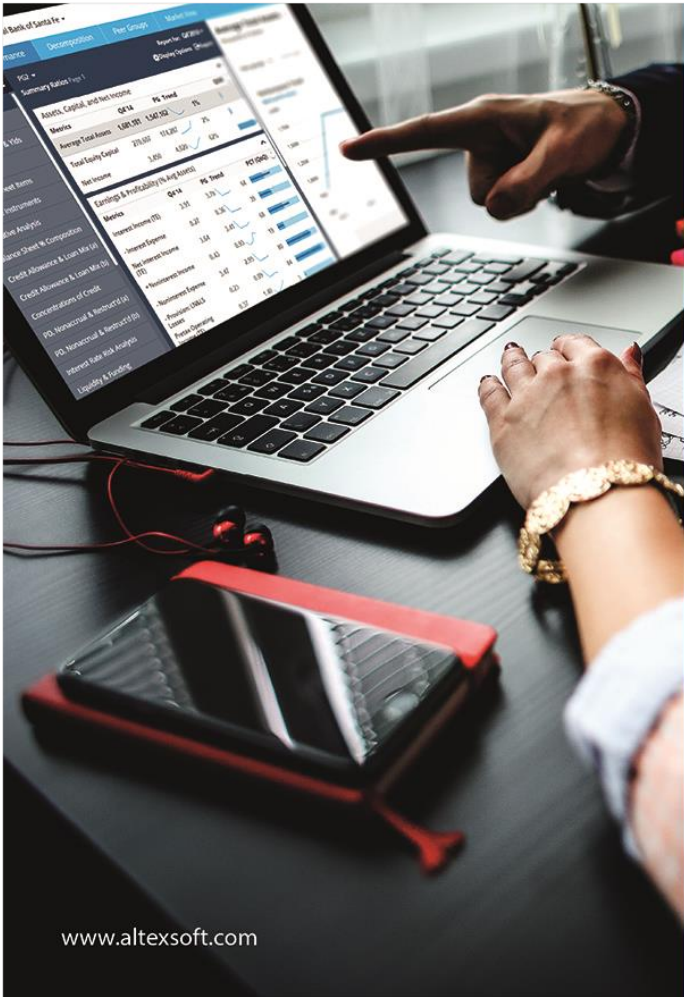
“Ukraine is not going to lose its IT industry because of the current situation, but greater stability is definitely needed.”

Nadiya Vasylieva, Head of Microsoft Ukraine

“A developed market, access to money, stability, rule of law and such needed things as a free flow of funds can also be found abroad. We don’t have it here.”

Dmytro Sholomko , Head of Google Ukraine

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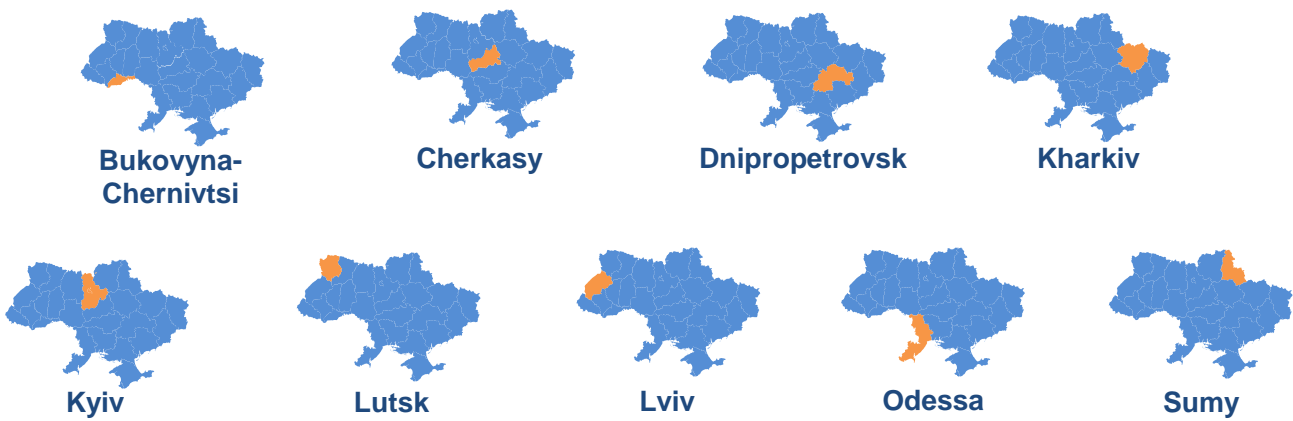
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1.5. COMMUNITY INITIATIVES

COMMUNITY INITIATIVES: REGIONAL IT CLUSTERS



Goals



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Cooperation with universities, colleges and schools to introduce a state-of-the-art IT curriculum, and support initiatives with a social impact.



Business

Improve transparency and ease of doing business for the IT industry, promote cities as an attractive IT destination, strengthen the network of local IT companies.



Local Government

Popularize the IT industry, facilitate the creation of co-working spaces and incubators, lobby industry interests, participation in programs aiming at the digitalization of society.

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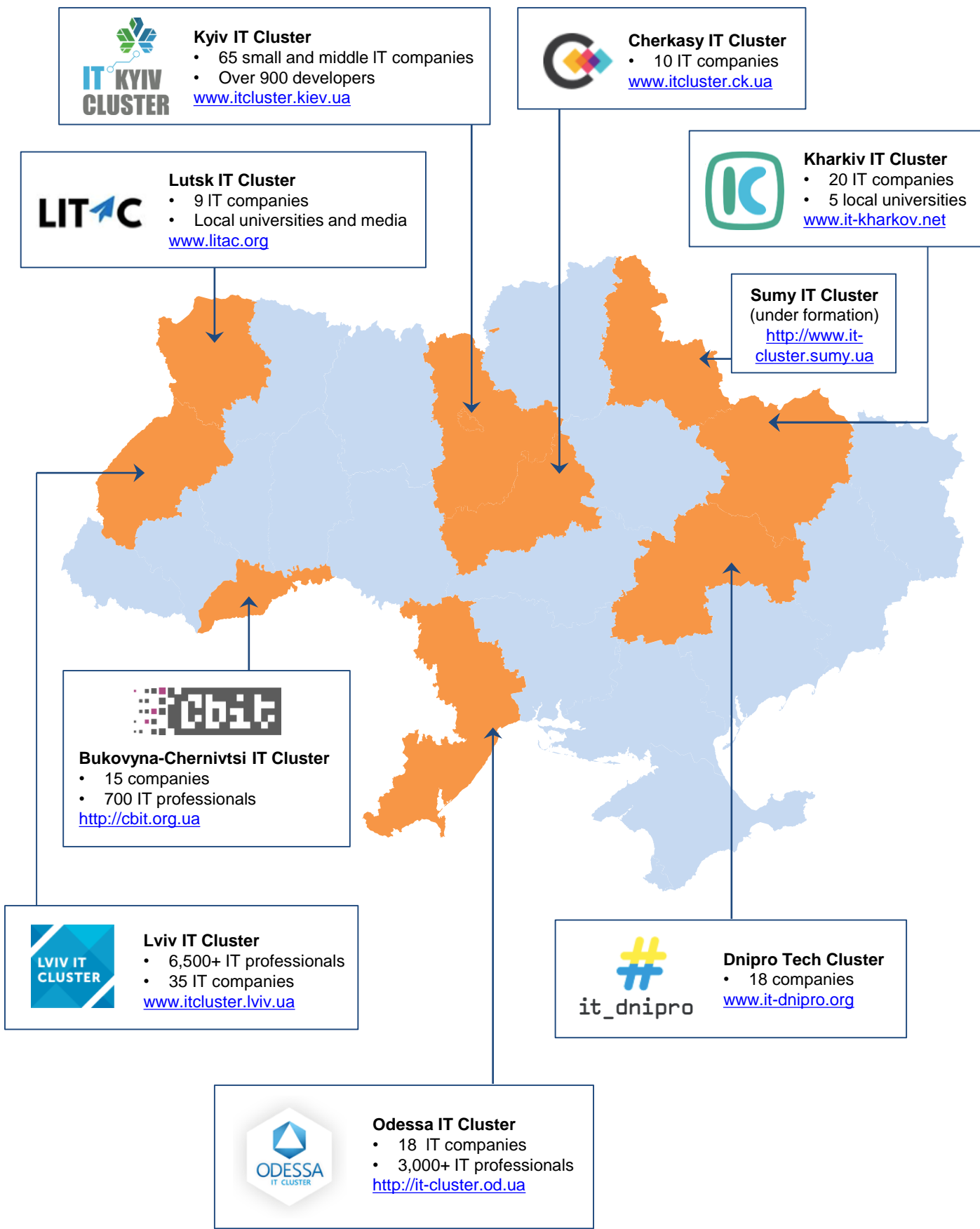
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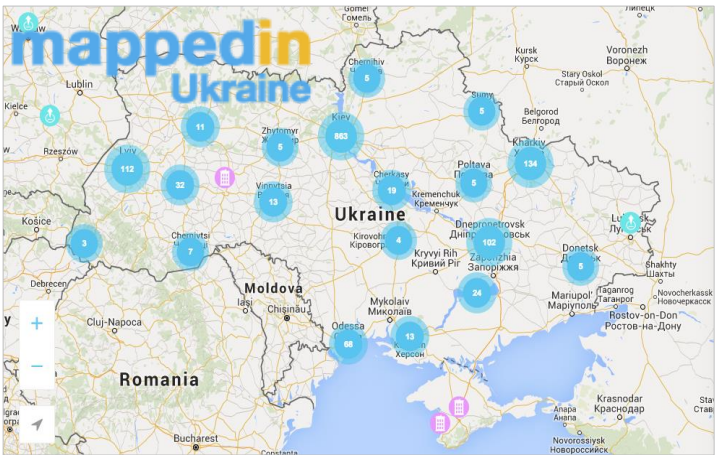


PART 1: THE UKRAINIAN IT ECOSYSTEM



COMMUNITY INITIATIVES: MAPPED IN UKRAINE

Mapped in Ukraine is a map of Ukrainian startups, business incubators, IT-companies, venture capital funds, R&D centers, co-working spaces and many other companies. The goal of the project is to get all Ukrainian IT-related companies on one map. In addition to raising awareness about Ukraine’s expanding IT community, the map serves as a tool to link potential investors, outsourcing contractors, partners with Ukrainian companies or simply tourists to the free Wi-Fi spots while they wander around a new city.



www.mappedinua.com

Today the project has mapped over 1,400 IT companies, including over 450 IT companies and 80 R&D centers. In addition to claiming their companies on the map, participants can post free job positions and events while startups can mark themselves as “raising funds”. The map is a community mapping platform, meaning that any tech company, project or facility can add a new place to the map. The information is later checked and approved by Mapped in Ukraine.

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How Microsoft is helping Ukrainian government and academia with IT amid political and business instability

In October 2014 Nadiya Vasylieva was appointed the new head of Microsoft's Ukrainian division, while Dmitry Shymkiv, who had served as Microsoft's Ukraine chief since 2009, joined the presidential administration to carry out reforms. In an interview with The Kyiv Post and Ukraine Digital News, Ms. Vasylieva commented on the group's situation in Ukraine, its cooperation with the government and current business prospects.

PROTECTING GOVERNMENT DATA

Since 2003, when Microsoft opened its office in Ukraine, the company has actively cooperated with the government and with the private sector. Its strategy has not changed since Shimkiv left, with the war in eastern Ukraine and the need for more secure internal infrastructure bringing the government and Microsoft even closer together.

Under the Government Security Program signed in December 2014, Microsoft partners with the Security Service of Ukraine, known as the SBU, and the State Service of Special Communication and Information Protection.

The Program is only the second of its kind for Microsoft in Europe. Besides data security, it manages communications between state bodies.

Cooperation was extended in early April 2015, when the Interior ministry signed a memorandum of understanding with Microsoft regarding cooperation in the areas of data protection as well as information and cyber security.

Under these agreements, Vasylieva says, the Ukrainian authorities benefit from a certain level of technical transparency, making sure that the company does not collect any significant information of state importance.

Microsoft is also helping law enforcement officials identify and combat threats to information security. Thus the December 2014 agreement has provided the Ukrainian authorities with access to the Microsoft Security Response Center in the US. This center collects information about cyber attacks worldwide 24/7.

"While we sleep, the USA and Japan work. Other parts of the world are not asleep as well, so if, for instance, an attack is approaching from Vladivostok, we can help by identifying the threat immediately," Vasylieva says.

Microsoft offers consultations to the employees of Ukraine's security services on how to manage the flow of security-related information.

Under the April 2015 memorandum, the role of Microsoft is to help build integrated infrastructure within the ministry, Vasylieva underlines.

PART 1: THE UKRAINIAN IT ECOSYSTEM

“The 350,000 employees and the systems they report to internally are disconnected from each other,” she explains. “That’s what we want to help them with – centralize the system, unite the infrastructure, make information closed to third parties and secure within the ministry.”

Microsoft does not provide software, but consults with employees and helps with system integration.

Ms. Vasylieva’s speech drew much attention in October last year at the Kharkiv (Kharkov) International Economic Forum

HELPING ACADEMIA’S DIGITAL TRANSITION

Microsoft also actively cooperates with Ukrainian universities. So far no fewer than 35,000 students have taken Microsoft IT Academy courses, while the YouthSpark Live program has offered online mentorship to 150 selected young leaders.

According to a survey published last year, the US firm – along with Google – was judged by Ukrainian students the most attractive IT employer, and held the lead in the Business/Commerce and Engineering/Natural Science rankings.

In addition to recruiting fresh tech talents, Microsoft helps several major universities switch from offline to online processing and document storage.

The universities get initial help from Microsoft without charge. When they request advancements and new features for their systems, Microsoft applies fees for the additional work, notes Vasylieva.

The US company is paying special attention to cooperation with the Oleksandr Bohomolets National Medical University in Kyiv. According to Vasylieva, several new solutions will be tested at the university before being made available on the Ukrainian market.

BUSINESS IN WARTIME CONDITIONS

Under conditions of war, Microsoft’s cooperation with universities has taken unusual forms. When a university in Donetsk, eastern Ukraine, had to move its staff and students to Vinnytsia, a quiet city in the center-west of the country, Microsoft helped the school reorganize a number of operations, switching them to online processing and storage.

The war’s impact on the IT industry has been heavy, since it has made business forecasts and investment profitability assessment difficult, Vasylieva adds.

But the war may also have unexpected business consequences. “It is also boosting the development of cloud technologies in the country,” she believes.

Microsoft’s Ukrainian division is aiming to position itself as a service company with a focus on software and cloud applications. It now ranks third after Cisco and HP among public cloud solution providers.

Still, the losses from the war and political instability outweigh the benefits. “Ukraine is not going to lose its IT industry because of the current situation, but greater stability is definitely needed,” Vasylieva concludes.

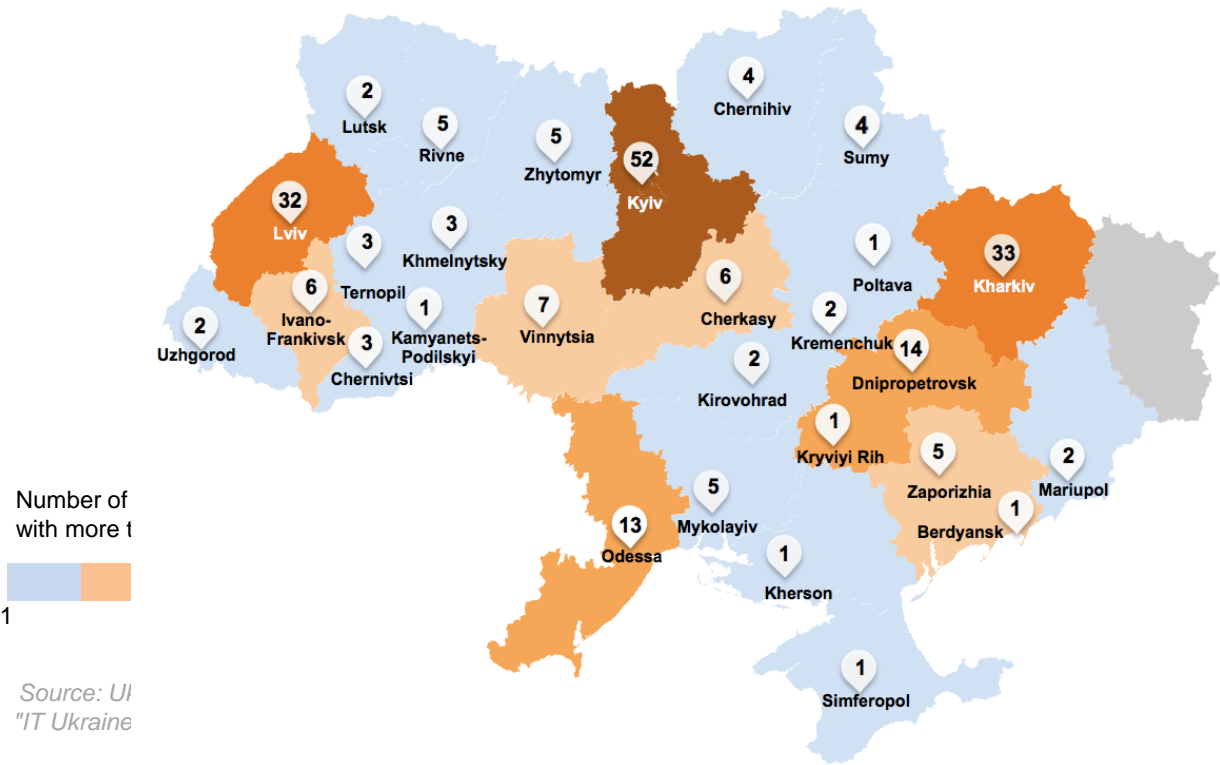
Mrs Vasylieva was interviewed by Bozhena Sheremeta of The Kyiv Post in June 2015. She can be reached at nadiiav@microsoft.com

IT UKRAINE FORM A TO Z

P A R T 2

THE UKRAINIAN
IT OUTSOURCING
INDUSTRY

2.1. KEY FIGURES



We have counted 106 companies in Ukraine with 80 employees or more, which are present in almost every region of Ukraine. Most of them are headquartered in Kyiv, Lviv, Kharkiv, Dnipropetrovsk and Odessa. Together they have offices in more than 50 countries on 6 continents. 63% of these companies have headquarters in Ukraine, 22% in North America, 13% in Europe and 2% in Israel with expertise in a variety of industries, from data management and telecommunications to e-commerce and travel.

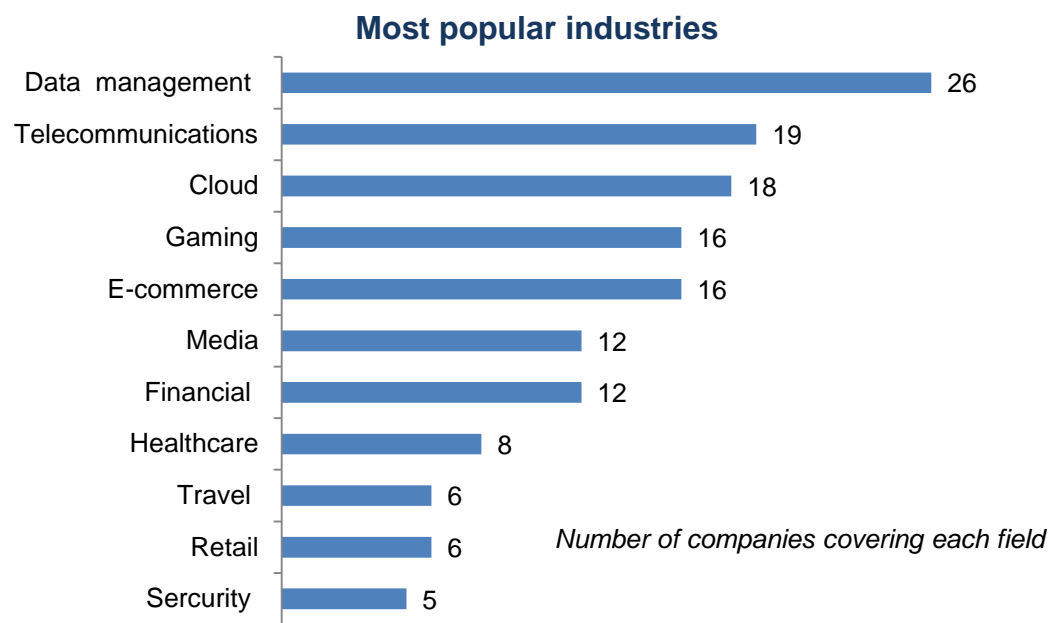
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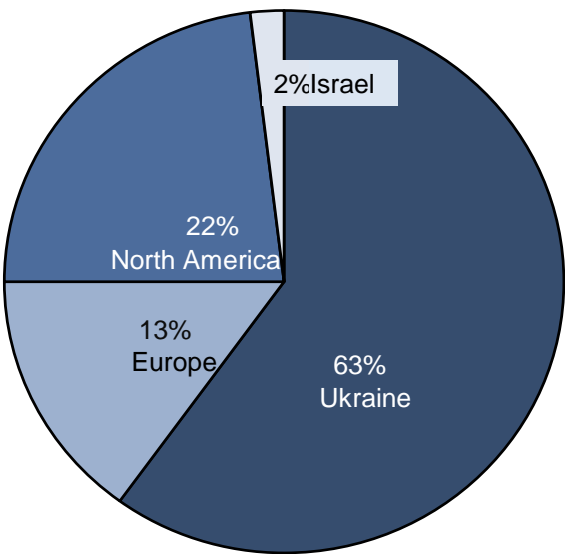
Source: Ukraine Digital News, "High Tech Ukraine From A To Z," 2015

Project types

Ukrainian developers often work on mobile, software, enterprise and web projects. A range of IT service companies have build their reputation in solving complex engineering tasks. One may also find in Ukraine excellent resources for front-end development, UI/UX design, QA and other tasks.

Source: Ukraine Digital News expert pool

Where Ukrainian IT outsourcing companies are headquartered



Source: Ukraine Digital News, "High Tech Ukraine From A To Z," 2015

2.2. EXPERT ANALYSIS



Stanfy CEO Andrew Garkavyi:
"Of the world's top mobile developers, almost a quarter have offices in Ukraine"

An award-winning software development and design company based in Kyiv, Stanfy specializes in solutions for mobile wearable devices and connected devices. CEO Andrew Garkavyi shares his views on current trends in the outsourcing market and how Ukrainian companies answer today's client needs.

– What role do Ukrainian companies play in the global mobile development service market?

Ukrainian IT outsourcing firms were among the first to provide mobile development services and they remain among the biggest providers in the world. Of the world's top mobile developers, almost a quarter have offices in Ukraine. This fact is of considerable importance for the Ukrainian IT industry: mobile interfaces are now dominating people's lives, with over a billion smartphones on the planet. This is already four times more than all PCs combined – and each of these mobile devices is more powerful than many PCs were 10 years ago.

– Are Ukrainian companies in line with the latest trends in client demand?

Many Ukrainian outsourcing companies started with solving a single tech problem – building web sites, maintaining IT infrastructure, or creating graphical design – which later on evolved into more complex software services, such as building CRM, ERP and other systems, or crafting consumer products. Generally speaking, a number of these companies have turned their focus to building sophisticated software products. And this trend continues. Clients prefer to work with professionals who have relevant experience and domain expertise rather than with those limited to general knowledge.

– Tell us a bit about your company and your clients.

We serve clients from the USA (where we have an office) as well as Europe, Ukraine and Russia. Among these clients are large Ukrainian telco and media companies (Kyivstar, StarLight Media, ICTV, Liga); famous brands (IMAX, Merriam-Webster, Intel); and startups from Silicon Valley. Some of them have a brilliant future, already enjoying the support of top VCs such as Andreessen-Horowitz.

We have been recognized repeatedly as a leading software development company by the international research agency Clutch and also named an industry pacesetter in multiple areas: one of the Top Wearable App Development Companies;¹ one of the Top Android App Development Companies Worldwide; the Top Mobile App Development Company in Europe;² and among the Top Consumer Mobile Application Developers.³ We have also won a number of citations for our mobile apps, including the Best Mobile App Award,⁴ the US Mobile & App Design Award⁵ and the W3 Award.⁶

1. <https://stanfy.com/blog/stanfy-has-been-named-one-of-the-top-wearable-app-development-companies/>

2. <https://stanfy.com/blog/stanfy-commended-as-a-leading-app-developer/>

3. <https://stanfy.com/blog/stanfy-in-top-consumer-mobile-application-developers-rating/>

4. <https://stanfy.com/blog/transplant-hero-has-won-the-platinum-award-for-best-mobile-app-user-interface/>

5. <https://stanfy.com/blog/lysn-in-is-a-silver-winner-in-the-2014-us-mobile-app-design-awards/>

6. <https://stanfy.com/blog/lysn-in-is-a-silver-award-winner-in-w3-2014/>



BPO: Ukraine's hidden potential

By Kostyantyn Yakovchuk-Besarab, founder at uSupport and Director of New Markets at WinTRADE BPO

THE GLOBAL BPO MARKET

Gartner defines Business Process Outsourcing (BPO) as the delegation of one or more IT-intensive business processes to an external provider that owns, administrates and manages the selected processes based on defined and measurable performance metrics.

Classic BPO services are grouped in two major categories: horizontal services (those that can be implemented across specific industries) and vertical-specific services (those that demand specific industry vertical process knowledge).

The industries that use the services of BPO providers the most are: banking, insurance, securities and investment services, process manufacturing, retail, wholesale, professional services, consumer and recreational services, healthcare providers, transportation, communications, media, utilities, construction, resource industries, state and local government, and education.

The global BPO market is comparable with the IT outsourcing market. Statista.com, an industry statistics portal, reports that total contract value of the global BPO market worldwide amounted to \$28.5 billion in 2014. According to the recent KPMG report "Global IT-BPO Outsourcing Deals Analysis. 2Q15 Analysis: April to June,"⁷ 72 BPO contracts worth \$7.5 billion were signed worldwide within this period.

UKRAINE, A KEY PLAYER OF TOMORROW

BPO is only taking its first steps in Ukraine, and there is no practical way of estimating the potential market size either in terms of financials or number of companies providing BPO services. What can be said is that the BPO offer in Ukraine is still underdeveloped. The primary reason for this situation is a lack of clarity in terms – how to differentiate BPO from IT outsourcing. Some companies that actually provide BPO services may not define themselves as such.

Yet Ukraine's IT outsourcing companies may well play an important role in tomorrow's global BPO service market, where competition has not been very intense thus far. In pure IT, both outsourcing and outstaffing models as well as programmers and engineers became very valuable assets – which is in line with the basic economic assumption that the more limited a resource is, the higher its price. And BPO can become a blue ocean for companies that would like to grow in the outsourcing/nearshoring/offshoring industry.

Ukraine's potential breakthrough on the global BPO market could be helped by both the country's economically active population – large, skilled, educated and living on the border of the EU – as well as by the relatively high national rate of "informatization" and Internet penetration, which allows Ukraine to offer virtually any kind of remote services.

7. <https://goo.gl/qQa0fZ>

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

What's more, for several years Ukraine has had the lowest average salary wage in the region – a price advantage that has increased as a result of the recent decline of the national currency relative to the US dollar.

Another factor is that, until recently, monsters of BPO such as Accenture and Capgemini preferred to put their offices in Russia – covering the entire former Soviet Union area – with no, or no significant presence in Ukraine. Now that Russia and Ukraine have cut their links, it is not ruled out anymore that these giants come to Ukraine.

Now that Russia and Ukraine have cut their links, it is not ruled out anymore that global BPO giants come to Ukraine.

In these circumstances, Ukraine has every chance to assert itself on the global BPO market. The question is not whether it will happen, but which players will emerge in front.

Several players may be mentioned to illustrate the above, each with its own background and specific identity as a BPO service provider.

- **A major European BPO company with activities in Ukraine:** Runway BPO⁸ is an international company which opened its first office in Ukraine in 2013. Having weathered the country's most turbulent times, this player now provides nearshore BPO services to Norway, Finland, Sweden and Denmark from six facilities across Ukraine, including one in Kyiv with over 100 employees. The company also has facilities in the Baltic states and Spain.
- **Locally established BPO companies shifting to global markets:** WinTRADE BPO⁹ is a Ukrainian company that started out as a local BPO provider. The company operates in English, German and other EU languages as required. Four major locations with over 600 call center agents cover the project for both the local markets and for customers from the USA and DACH countries.
- **Ambitious BPO fast-starters:** BPO Nextdoor¹⁰ and Pure BPO¹¹ are very flexible and promising companies. They are active in traditional BPO services and focus exclusively on the international markets.
- **An example of niche BPO players:** SupportYourApp¹² focuses on outsourcing of business processes and routines that run in the background of the launch of any application.
- **A cross-industry giant:** PrivatBank,¹³ a leading banking institution in Ukraine that provides banking services to many B2B customers, has introduced a BPO service branch with a set of typical services that businesses use in everyday routines. Though oriented towards the domestic market, this service is also coming into the banking service offer, and could potentially change the Ukrainian BPO landscape completely.

uSupport is an online catalog of IT companies which provides precise information about Ukraine's export-oriented IT services and products. Mr Yakovchuk-Besarab can be reached at ky@usupport.in.ua

8. <http://www.runwaybpo.com>

9. <http://www.wintrade.ua/en/cost-reduction>

10. <http://bponextdoor.com/>

11. <http://purebpo.com/>

12. <http://supportyourapp.com>

13. <https://privatbank.ua/bpo>

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Alexey Nikolayev, VP Corporate Clients at NIX Solutions: “Even before engaging with outsourcing, it is essential to identify potential internal knots of resistance.”

Based in Kharkiv, NIX Solutions is a sizeable IT service company specializing in web development, mobile applications and online marketing with integral quality assurance, IT consulting and support services. Vice president Alexey Nikolayev shares his views on the reasons why outsourcing projects may fail and how to address the issues related to this outcome from both the customer's and the service provider's sides.

– Many outsourcing projects fail or succeed only partially. What are the reasons for these failures from your point of view?

It's pretty easy to do the postmortems. Among the typical reasons, one of the most commonly named is “We engaged with the wrong vendor.” At first glance this issue looks clear, but surprisingly it has more than two sides. A “wrong vendor” may be just a weak firm, with insufficient technical skills or experience. Or on the contrary, it may be a strong firm that was overwhelmed with other work – so when they got engaged in your project, the staff had simply bitten off more than they could chew. Finally, the “wrong vendor” could be a solid company with the proper technical background and the right capacity – but just not the right fit for your project.

– So how should customers choose vendors?

On the one side there are well-known vendor screening procedures, industry associations, online directories, industry reports, feedbacks, etc. There are also consultancies that can provide end-to-end procurement service. Still, projects keep failing because the vendor wasn't the right one. There are plenty of tricks to select a good provider, but I would like to emphasize just one thing: a provider's ability to deliver is not directly connected to their size, global presence or certificates. I'll say more – it doesn't correlate with the years of experience displayed in their team's CVs, either. The key thing, in my view, is to deal with vendors for whom your project is important.

– Are the causes for success or failure only from the vendor's side?

No, of course not. Other issues, including some that are often overlooked, can come into play as well. These usually reside in the customer's organization itself. For medium and large organizations, the typical case is “destructive resistance” from mid-level management or linear employees. This happens for different reasons: some people have settled into a stable state and hate to hear the new buzz that comes with the changes; others fear losing their positions; and so on. So before engaging with outsourcing, it is extremely important to identify potential knots of resistance and understand the key drivers. Having addressed this potential issue, it becomes easier to gain support from the team, which significantly increases the chances of the outsourcing mission.

For startups, an internal reason for failure might be the lack of involvement from the project champion, or lack of process maturity. If you are a startup and have engaged an offshore team, make sure you have a consistent project vision and are able to streamline the requirements, at least on the higher levels. If the vendor is strong enough, they will manage the project; but they do need to know the direction you are heading in – and will need timely inputs from your side if there are changes in priorities.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Another potential issue from the client side is that they may be reluctant to share the business background, i.e. they provide the specifications and technical details but don't bother to explain the sense of the project. In such cases the vendor has to navigate while seeing only part of the picture. This tends to increase misunderstandings and limit the vendor's ability to come up with recommendations for process and project improvements.

– How should vendors build relationships with clients to address these issues?

We realize that the main fear people have when they go offshore or nearshore is being deceived in their expectations. So we keep the process transparent from the very beginning. This means no sales tricks or mechanical responses, but rather a fair partnership with complete integrity, crystal-clear communication and pro-active thinking beyond the formal requirements. The right vendor should dive into the problem and treat the task as if it was their own baby!

Trust is a key aspect. In some cases, good reputation and word-of-mouth can create favorable conditions. For example, an initial positive impression was created when we were introduced to a major client by an independent IT consultant whom the client regarded with great respect. But in most cases trust does not emerge immediately; hard work is required to make this happen. We seek to achieve a level of partnership where the customer feels free to share their “pains and hopes” – what their business suffers from and what success picture they imagine. We aim to become part of the customer's team, thinking together and improving the business together.

– What are the keys for successful overseas outsourcing?

Proper communication at all levels is paramount. Many project teams today are decentralized across different locations, time zones and cultural settings. It's very important to provide each other with reliable information on progress, priorities, challenges and solutions – and to maintain a clear understanding of the strategy. Fortunately, there are very minor cultural differences between IT people in Ukraine and the US and Western Europe. We put significant effort into perfecting communication skills among our teams to ensure clear, consistent and professional practices. We encourage our team members to share their opinions and have open discussions of the project in front of others, to speak up and challenge things that they don't agree with. At the management level, we make sure there is constant communication with the customer's management to obtain feedback, learn expectations and identify any room for improvement on either side.

Another success factor would be proper technical expertise and understanding of the customer's business. Yet perhaps even more important is the ability to seamlessly integrate the on-site and offshore teams. I am not talking about technical means (once these have been established), but about process, work ethic and true involvement.

Last but not least, methodology can be highly productive only when motivation is in place. This is our forte – and probably one of our “secret ingredients.”

– Many vendors provide on-site representatives to provide better coordination, which is quite costly for the clients. Is this a good idea?

This is indeed recommended, but not all the time. In the inception phase, our business analysts, project managers and development managers work on-site with the customer's team and stakeholders to grasp the initial scope and priorities and provide fast turnaround in project planning and staffing. But in later phases we usually continue off-site. We come on-site again for milestone acceptance, further release planning and to improve teams' cohesion.

That said, working only via on-site representatives might be a symptom of significant gaps in culture, processes and communication between the vendor and the customer.

Mr. Nikolayev can be reached at ask@nixsolutions.com

SOME COMMON OUTSOURCING ISSUES
– AND HOW TO ADDRESS THEM

By Alexey Nikolayev, NIX Solutions

Problems	Possible solutions
Selecting the right IT service provider	
<ul style="list-style-type: none">• A provider’s ability to deliver may not be correlated with its size, global presence or certificates.• Years of experience on the software engineers’ CV do not guarantee a capacity to create great solutions.• Even a good IT service firm may not be a good fit for your project.- If your project is too small for them, you are not an interesting client, even if they take your order.- Some may not provide project management, which will pose a problem if you don’t have an in-house project management capacity or if your model is not adapted to decentralized delivery.	<p>Good service providers usually</p> <ul style="list-style-type: none">• propose concrete solutions rather than tell you how good they are;• communicate proactively and transparently rather than in “Yes, sir” style. They will not hesitate to tell you that something is going wrong. They will provide honest estimates and statuses;• show real involvement and a desire to understand the business;• show the ability to invest resources to acquire necessary technical and domain expertise;• pay due attention to project knowledge issues, ensuring proper formalization and showing no reluctance to “reverse” knowledge transfer;• agree to a pilot project or a test period on a “pay only if you like” basis.
Addressing internal obstacles	
<ul style="list-style-type: none">• Resistance from the middle management and regular staff of your organization is one of the most common causes of failure for an outsourcing project. This may happen even if the service provider is a good one and despite active support of the project at the top management level.• Internal resistance is usually driven by unwillingness to change, political intrigues or hidden interests (some groups may want to bring their own vendor). Fear of competition (“They want to steal my job!”) or a negative experience in the past may also explain negative attitudes. As a result, the outsourcing operations may be treated with lower priority and managed by mediocre officers.• Another cause of resistance may be formal. Your corporate policies and IT infrastructure may be run in such a way as to prevent the service provider from working efficiently. For example, getting all the necessary accesses and approvals to start or continue a project may take months.	<p>Before the project starts:</p> <ul style="list-style-type: none">• Highlight the benefits for the internal team. For example, the success of the project and the offshore extension of the team will provide knowledge acquisition and enhance career opportunities.• Get your team involved in defining provider selection criteria.• Review corporate policies and IT infrastructure and make sure they are “outsourcing-friendly.” <p>When the project starts:</p> <ul style="list-style-type: none">• Identify the potential knots of resistance in the early stages. Understanding the issues is 50% of solving them.• Bring people who have positive offshoring experience onto to the project team.• Plan and announce the required organizational changes, taking into account the offshore team. Assign key roles and make sure everyone understands their contribution to the project.• Encourage personal and trustful relations between the internal and the offshore teams.• Make sure the results are reflected in performance goals for the team engaged in the outsourcing project.• Get ready for knowledge transfer.

Problems	Possible solutions
Transferring project-specific knowledge	
<ul style="list-style-type: none">Understanding how the product will help end-users to achieve their goals and how it will generate profit for its owner is as important as the explanation of product features. It is not a good sign if the service provider is not curious about your business domain and business model.	<p>Which content should be transferred:</p> <ul style="list-style-type: none">Business aspects:<ul style="list-style-type: none">overview of the business domaininformation on the companyOrganizational aspects:<ul style="list-style-type: none">culture, history, values of the companyorganizational structure and key contactsAbout the product to be developed:<ul style="list-style-type: none">business contextproduct features / functionalitiesend-users: their needs, behavior, etc.business modelTechnical aspects:<ul style="list-style-type: none">technology stackdesignsexisting codebase <p>Getting ready to start:</p> <ul style="list-style-type: none">Transfer of materials, access accounts, environmentInformation on the resources allocated (people and time)
Why and how to kill micromanagement	
<p>Micromanagement doesn't work.</p> <ul style="list-style-type: none">It triples the amount of unproductive communication.It kills proactivity, negates the tactical independence of the offshore team and puts process maturity in doubt.	<ul style="list-style-type: none">In the offshore model we often deal with substantial time zone differences, with limited hours for on-line communication. So each portion of information should provide direct value for the operation or product being developed.If an in-house manager fails to build trust and let the offshore team work with reasonable autonomy, that is a reason for a serious conversation or a review of your staffing plan.If the service provider performs only under micromanagement, you probably need another provider.

Problems	Possible solutions
Building trust and cohesion between teams	
<ul style="list-style-type: none">• A lack of cohesion and trust between the in-house team and the vendor team is a recipe for failure.• On-site presence is rarely a good solution. Although it creates a sense of easy accessibility, it doesn't cover all communication needs. Ultimately the on-site manager becomes an email forwarder and a translator from English to English who can't get immersed in the details of a project. This approach probably hides huge gaps in communication, mutual understanding, and culture even as it increases costs.	<p>Good practices for building relations:</p> <ul style="list-style-type: none">• Identify the relationship owners.• Establish reporting structure and communication channels.• Make sure that your staff understands the goals of the relationship with the outsourcing service provider and sees personal opportunities in the project.• Maintain communication throughout the project.• Provide constructive feedback to the service provider.• Review the provider's performance on a regular basis and engage in discussions with their team.• Do not economize on teambuilding (a recommendation to both parties!) <p>Good practices for driving the offshore team:</p> <ul style="list-style-type: none">• Articulate your expectations to the provider's team; communicate your standards.• Make sure the offshore team is aware of the milestones, long-term planning and business impact.• Keep the task flow constant (e.g. provide tasks that be can be worked on if the main assignment is blocked or your team is not available).• Provide timely answers. The provider's team needs to know where to go if their project questions/requests are not addressed.• Make sure the blockers are worked on. <p>Enhance communication:</p> <ul style="list-style-type: none">• Translate not just technical information, but also values and culture.• Use time-zone differences wisely.• Encourage teams to develop their human communications. Information must be exchanged not only in SCRUM meetings.• Mix on-site visits and teleconference tools in a proportionate manner.• Have your technical and managerial staff visit the offshore team in their location. This is an investment in proper relations that brings a high return.• Ensure that communication channels are always open on every level: between executives, relationship owners and teams.



The challenges of working with remote teams for startups

An interview with Eugene Vyborov, CEO at Webinerds

– What are the most common concerns that you hear from CEOs and entrepreneurs about working with remote teams?

I'll start with intellectual property. Many people in the startup industry have heard a ton of horror stories related to startups basically closing because they've chosen a bad partner for product development and the partner has either stolen the intellectual property or just decided to reuse it with a competitor. Or they've disclosed some vital information regarding the startup — maybe accidentally, maybe not — and that essentially killed the business.

– With all the horror stories floating around about working with remote teams, how can US companies keep themselves safe?

Most importantly, they need to very carefully look at the agreements they're signing; and these agreements should be signed with US entities, because when they're not then they're very hard to actually enforce. For example, if they sign an agreement with some freelancer from India or Ukraine — an NDA, for example — and then the freelancer breaks the NDA, there's effectively nothing they can do to protect themselves.

– Why is it especially critical for startups to have all their ducks in a row, so to speak, when working with remote teams? Why is thorough paperwork especially important for startups?

Because on the next due diligence — when the startup is trying to raise money - they'll definitely be checked for the proper legal documents, and all relationships are going to be scrutinized by potential investors. And if the investors find a problem in an agreement that was signed with a particular partner or contractor - something that threatens the company or violates intellectual property - there's a very high likelihood that the startup is not going to raise the money because of that.

– We know that investors are always concerned about legal issues and paperwork. What are some of the other hold-ups with venture capitalists when it comes to startups who are working with remote teams?

Venture capitalists don't tend to like working with remote teams because they [venture capitalists] have preferred stock options. So in the event of bankruptcy, they can sell the team to someone else and get at least partially compensated. When part of the team is external, not in the US, then it reduces the startup's value because there are fewer assets. A lower valuation is bad news for investors.

– With all the challenges of working with remote teams, including potential challenges with venture capital, why is it still desirable for startups to work on a team extension basis?

First, I should say that the core team needs to be on-site. Remote resources only help with development; the main expertise has to be with the core team. But team extensions can be a really big boost.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

It's important to remember that the top 5% of developers — who are needed by startups — most of this top 5% in the US are already working for Google, Facebook, and Amazon. And so it's very difficult to find top-notch developers locally who can work in-house for a startup because there are big players sucking them from the market. But the top 5% of developers globally represents a much larger number in absolute terms. So if a startup looks overseas, they gain access to a bigger market of high-level resources.

– What's one of the big mistakes that US teams make when working with remote developers?

They actually need to pitch their project to the developers. Development goes much better when people are involved in the project psychologically, not just coding and getting their check once a month. Valuable people are the ones who are actually able to innovate within the startup, who are able to contribute other value besides just coding. The mistake is not interviewing developers. It's a question of personal connection. If they want people to contribute, they need to find people who actually believe in the project.

– Once a project is underway, how can you make sure that remote developers stay committed to the project? — to make sure that they care about the product?

It would be great if a company could give an engineer equity in the startup. Not just equity for a company, but equity for an engineer - so these engineers actually get more motivated to keep working on the project. Startups have a certain percentage of their stock devoted to giving options to engineers. And clearly they're giving those options to in-house engineers. But if you're working with engineers on a team extension basis — even if they are a part of another company — and if you have the possibility to buy out this engineer (if you want to), and you want to keep them interested, then there is a good reason to give them an option in your startup. Because in this case they are no different, really, from an internal employee. It doesn't matter in which company this developer is working currently, if you want them to be committed then they should be part of your team. It's a new organizational approach I suppose.

– How can startup teams most effectively work with remote teams? How do you make up for not being able to walk down the hall and talk face to face?

From my point of view, Skype doesn't replace personal communication. So if it's possible, they should either be bringing remote developers into the US for a certain period of time to meet them in person and speed up initial project development, or they should work with a US representative of the company who will be managing this remote team and will be helping them learn to work with the remote team. One of the big difficulties that US teams run into is that they don't know how to work effectively with remote teams.

– I'm curious about mistakes startups make once something starts going wrong with the project. Even if they've met the engineer and the project kicks off well, what mistakes can still be made?

First of all, there needs to be a solid understanding of roles in the team, responsibilities in the team. That's the way you can really debug, if you will, and find where the glitch is. And if something is going wrong, people often react in the wrong way — they throw more money at it and put a few more people on the task. The trick here is that it doesn't work. If you extend — even if you double the team — it doesn't mean that performance is going to double. It means that performance is going to drop — and significantly — at the beginning, and then it's going to grow, but maybe by 70%, or 80% in the best case.

– Can you talk a little bit about trust when working with remote teams? How can teams develop relations of trust?

Trust isn't there from the very beginning, obviously. But to make it happen quicker you need to explicitly check your expectations. It would be great, first of all, to write down a list of expectations you have for this relationship. That's very critical. You need to tell the remote team your expectations for the project. And you need to check on those expectations frequently enough to get your trust developed sooner rather than later. Because a trust mode is the most efficient way of collaborating.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

– What problems can arise when remote teams don't communicate well with their US colleagues?

When something is going on overseas and you don't get enough information about that, it creates an irrational fear of the absence of control. People start to get paranoid about things. The only way to overcome that is to ask developers to over-communicate what they're doing. That's the developer's job — to create in the startup a feeling that they know what's going on and that they're in control. Companies need to select developers based on their ability to provide visibility and transparency about the project.

– Are there any cultural differences between IT culture in Ukraine and IT culture in the US that can cause complications?

Ukrainians are actually pretty close to other Western cultures, and for many Americans it's quite comfortable to work with Ukrainian IT companies. But at the same time there are a few things you might want to pay more attention to. There is this pixel perfect philosophy that's really a part of the culture in the United States, and sometimes Ukrainian developers don't give the same attention to final details that their US colleagues expect. The basic way to solve this problem is to find the right people. And communicate well. Like developers everywhere else — like I was mentioning before — developers in Ukraine are much more involved in the project if they're invested in it personally, if they really believe in what they're doing and the company is doing. So ultimately you just need to find a good company who hires good people and then involve them, make them part of your team.

Mr. Vyborov can be reached at ev@webinerds.com

INDUSTRY ANNOUNCEMENT



The infographic features a blue and white geometric background. At the top left is the IT UKRAINE ASSOCIATION logo, which includes a stylized blue 'C' shape. Below the logo, the text 'Ukraine's First IT Industry Association' is written in a bold, blue font. To the right of the logo, a list of four bullet points is displayed: '45 proud members including 9 of the 10 top software development companies', 'More than \$2 billion export annually', '25 000 developers', and 'Serving the industry since 2004'. Below the main title, there are four circular icons arranged in a diamond pattern. Each icon contains a symbol and is accompanied by a text label: a flag on a pedestal for 'For a better legal environment', a globe with a hand for 'Developing export and attracting international players', a group of people for 'Community building', and a head with gears for 'Fostering education'. At the bottom center, the website address 'www.itukraine.org.ua' is written in a blue font.

IT UKRAINE ASSOCIATION

Ukraine's First IT Industry Association

- **45** proud members including 9 of the 10 top software development companies
- More than **\$2 billion** export annually
- **25 000** developers
- Serving the industry since **2004**

For a better legal environment

Community building

Developing export and attracting international players

Fostering education

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- Game testing



How USA clients and Ukrainian providers can accommodate their cultural differences

By Jennifer Roberts, CMO co-founder at Ekipa.co

I'm a California-born Costa Rican-American, Yale Law School graduate, Argentine-trained online marketer who's immigrated to Turkey to become a textile maven and CMO for Ekipa, a platform that facilitates global collaboration. In each of those situations, my possibilities for success were directly tied to my willingness to work with different cultures.

I guarantee that if you're reading this report, your success is also tied to your ability to work across cultures.

In remote work, everything happens across different cultures, and most expectations about how to work together come from the subconscious expectations that each side in the client-provider relationship brings with them. No matter how many tools you implement or how many business cards you hand out at a convention, if you're not aware of the fundamental differences between your culture and theirs – and if you're not willing to accommodate those differences – then it's time to learn why it's so important. Let's take an overview of USA culture versus Ukrainian culture, and see how each set of expectations plays out over a typical project's lifetime.

TYPICAL USA CLIENT

In the United States, consumers have a wide variety of choices for almost any product or service they want. For example, any neighborhood pharmacist might stock over 15 different brands of toothpaste. From a very early age, people are accustomed to different companies working hard to get their attention, and to going beyond the quality that's normally expected in order to ensure that they'll keep coming back for more. In the United States, the customer is always right because the balance of power is usually in their favor.

United States culture was originally a pioneer culture – going to a new place far from home to start everything anew requires a firm belief in your own ability to overcome obstacles. If you're not smiling and positive – if you stop at what you think you can't do instead of powering through your limits – you starve. Nowadays, it's expected that you acknowledge setbacks, but you always provide a realistic solution and deliver on it.

TYPICAL UKRAINIAN PROVIDER

Compared to their USA counterparts, in Ukraine, sales tend to be much more straightforward. It's not necessary to be smile or be friendly – you just do your business. Friendliness is reserved for friends and family. To be overly friendly might even be disrespectful, or out of place at least.

Ukrainians tend to be more honest with their opinion – personally, I find this to be a relief. If something sucks, it's ok to just say it. If you think someone is wrong, you correct their assumptions. Conversely, to an American, this can feel as if they're digging their heels in the sand and refusing to be flexible in their sales process. That's a reasonable perception when you're coming from a culture where the customer is always

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

right – the USA. But in Ukraine, the relationship between seller and buyer is different. In Ukraine, the seller has the balance of power in their favor and customers should be grateful to work with them. In the USA, it's the other way around.

WHO'S RIGHT?

Normally when one person travels to another country and interacts with locals but refuses to conform to the local culture, it's that person who's wrong. Nobody gets to take their culture with them to another country. But in the context of remote work, we have two parties – client and provider – who interact while being fully immersed in their own culture. This means that no one is right, and that each side has an absolute responsibility to accommodate the other without expecting anything in return.

Because this article is oriented more towards provider teams, I focus on ways they can tweak their behavior, but any clients reading this article should also consider how they can accommodate a Ukrainian provider team as well.

OPPORTUNITIES TO EXCEL WITH USA CLIENTS

- **Assume nothing and over-communicate**

Always ask clarifying questions and make sure you understand everything. Every culture is a set of assumptions about how things should work – what you assume is normal in business might be unprofessional or worse yet, rude. Always have an agreed upon plan for communications and project development.

- **Check in frequently and show your progress to establish trust early on**

USA clients have heard horror stories about working with teams from abroad, about how some teams take their money and don't do work, or how the code they do get back is terrible. A provider team, on the other hand, can't function optimally with a nervous client constantly pestering them. Your USA client will trust you more if you frequently check in with examples of your work – when they see you're proactive and moving forward, they'll trust that you know what you're doing. For example, if I had this chat with my provider, I would be happy with their performance:

INNA: Hey Jennifer, we've got half the mockups ready for you to review. I know the deadline is next week but could you please take a look so we know we're making good progress?

ME: Thanks, that looks great!

INNA: Just FYI, next week we have mandatory federal holidays. We might be delayed by two days producing the other mockups. Is that ok?

ME: Yeah that's fine, as long as we get them at least 5 days before launch. (In my head) *Good thing they're making progress! I guess nobody can prevent mandatory days off.*

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Note how Inna showed me her progress. She also anticipated a setback and let me know about it beforehand, versus not saying anything and giving me a nasty surprise when work is delayed. Now I can rearrange things so that my project doesn't fail. And I know she's looking out for my interests. I'd be happy to work with her again.

AT THE SALES STAGE:

- **Show the client you're interested in learning about their business and how you can help them**

Hard sales tactics have stopped working in the USA, especially in tech. People care less about how wonderful you are, and care more about what problems you can solve for them. Ideally, they'd like to work with providers who make them feel like they're on the same team. Check out the difference between these two sales emails:

Subject: Build software with (Redacted)

Body: Hi Jennifer my name is Inna. I work with (Redacted) and we have clients from all over the globe. We are world's #1 software provider. You should contact us for your software development needs.

No USA customer reading this cares. They're bombarded with emails like this every day.

Subject: We'd like to help you grow CasaBella

Body: Hi Jennifer, my name is Inna. I work with (Redacted) and I noticed you're the CMO of CasaBella. I checked out your website and it looks like you've just got a landing page up. How can we help you build it? Let me know if you'd like a quick 10 minute call and I can give you my advice.

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PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

If I saw this email, I'd be more impressed. This person has investigated my company, knows my role and motivations, and also took a look at my website to determine what I need. They're also offering me advice. I'd be willing to talk to them, and if they show me they know what they're talking about, I'd work with them too.

AT THE FULFILLMENT STAGE:

- **Set deadlines and stick to them**

Remember, you're not the only component of your client's business and they may have other elements that depend on you delivering your work as promised. Often, there will be other urgent things they have to complete that they've scheduled, assuming you will deliver on time. In the USA, in general people expect things to be delivered and done when a provider says they will be. Consider the deadlines you've agreed to as something set in stone.

- **If things go wrong, never play the blame game**

This is a great way to make your USA customer never return. If there's a problem, even if you think it was their fault, do not place the blame on them. If it's due to something beyond your control, do not blame that thing. Just state what happened neutrally and offer a solution. Consider the difference between:

"If you had gotten us the design spec sooner we would have been able to start and complete the project within your requested timeline. Since you delivered it seven days late it cannot be done on time."

Versus:

"We received the design spec on November 11th and the original project duration was going to be 10 days. Although our due date was November 14th, we'd like to propose extending the deadline to November 17th. That way we have enough time to create something awesome for you, and your original timeline isn't exceeded by much."

Notice the solution – not once did this person mention the word "you" in describing the problem, only in the solution. And the deadline extension was asked for proactively, within the context of the client's interest in having a quality final product.

SUPPORT:

- **Be responsive as early as possible, even just to acknowledge their request**

In the USA and North America, often nothing is more infuriating than your business being in serious trouble and not hearing anything from the one person who can fix the problem. It's true that Americans are spoiled by an on-demand culture. All you have to do is let them know you've seen their email and you're working on a solution, and they will trust you to take care of it.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Subject: Ticket #00678540 Feb 28 15:40

Body: Hello Jennifer. Sorry to hear there's a problem with your app on Nokia phones. We've taken a look at the HTML5 code and we found a fix, which we will implement for you for free.

By the way, you can avoid problems like this in the future by building a mobile specific version. I can call you tomorrow to explain more - when are you free?

Notice how this person acknowledged me personally, went above and beyond what's expected by implementing an immediate fix for free, and also turned my frustration into an opportunity for an upsell in the last paragraph. Since they've already been so responsive and generous, I'd be happy to listen to her and much more likely to pay them for more work.

There's much more to be said about intercultural sales cycles, but by following these simple practices you'll be on the way to increasing the number of happy USA clients who come back to you for more business and who refer other clients to you. At Ekipa, we know that facilitating global collaboration isn't easy - but with a little understanding and accommodation on both sides of the relationship, things can go much more smoothly.

Jennifer Roberts is the CMO and co-founder of Ekipa.co, a platform for facilitating global collaboration between clients and software development teams. Mrs Roberts can be reached at jennifer@ekipa.co

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CodeIT CEO Alexey Kholodenko : "Our generation is literally obsessed with technical novelties and soaks up information like a sponge"

Founded in 2007, CodeIT has developed expertise in Big Data mining and processing, custom e-commerce development, e-learning, healthcare, media and telecom, social and dating services, geo-location solutions for metropolises and multi-platform game development. Company CEO and co-founder Alexey Kholodenko recalls the evolution of the global outsourcing market over the past decade and shares his views on Ukraine's competitive advantages.

– You've been providing outsourcing since 2007; what have been the most notable changes/trends in the global market since then, and how do you envision the future?

Our world has changed significantly over these years. In a general perspective, we saw how technologies were being renewed almost constantly. Desktop applications were replaced by web solutions. The Web 2.0 era was followed by the trend of an almost ubiquitous mobility while the number of mobile Internet users grew from 500 million to 3.5 billion from 2010 to 2015. Today's trends are shaped by the emergence of the Internet-of-Things, robotic process automation, artificial intelligence, virtual reality, and other approaches. VR is also growing quite rapidly and enveloping the world of entertainment. We've been also developing applications for VR, engineers like it very much.

Meanwhile, outsourcing has become more sophisticated. Clients used to set simple and direct tasks for vendors. Nowadays, clients are looking for more complex solutions. Many come with a simple idea and want to receive a full-stack software solution as a result. This is not only coding, it also includes market analysis, quality assurance ensuring high-load and stable operations, post-development support and improvements. Customers want to find all the necessary services "under the same roof."

We also face situations where customers are looking not only for experience and ability to produce code, but also for stable and predictable processes. Our company has invested considerable time in creating this strong basement. No matter what may happen, it must not affect the development process.

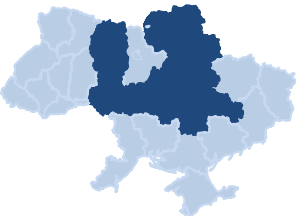
– How do you feel Ukraine's position in the global IT outsourcing market has evolved?

Obviously Ukraine gets stronger and stronger every year. I have no doubt that Ukraine will raise its rank even higher on the global IT map, and here's why:

- Ukraine has strong higher education, with over 40% of young Ukrainians holding at least a bachelor's degree.
- Our country has a great scientific legacy. Our generation is literally obsessed with technical novelties and soaks up information like a sponge.
- Ukrainian engineers have the ability – more than many others, according to our clients – to think from the client's perspective. They do not follow instructions blindly, but instead seek and find the best solution to meet system requirements.
- Last but not least, our mentality is quite close to that of the US and Western Europe. This is about cultural values and business attitude – which is very important, especially when you're talking about a long-term relationship.

Born in 1983, Mr. Kholodenko holds a master's degree in law and economics. He is co-founded CodeIT and co-owns a game development company. He can be reached at alexey.kholodenko@codeit.com.ua

2.3. ANALYSIS BY REGION



CENTRAL UKRAINE
AND DNIPROPETROVSK



Dnipropetrovsk average monthly salary (in US dollars)			
	Jr. Engineer	Mid Engineer	Sr. Engineer
Java	700	1,500	2,700
Java Script	650	1,800	2,500
C#/.Net	710	1,850	2,850
Obj. C	700	1,500	3,000
PHP	250	1,800	2,600
QA	380	1,150	2,000

Source: Dou.ua

Central Ukraine has the fourth largest IT outsourcing community by the number of companies after Kyiv, Kharkiv and Western Ukraine, and the second largest community of R&D centers after Kyiv. Dnipropetrovsk is not the only city in the region with a large number of IT companies. Vinnitsa, Cherkasy and Zhytomyr also have significant IT communities. The largest companies in the region include AMC Bridge (Dnipropetrovsk), AOG (Cherkasy), Apriorit (Dnipropetrovsk), Archer Software (Dnipropetrovsk), Delphi (Vinnytsia), ISD (Dnipropetrovsk), Master of Code (Cherkasy), QAP Int (Zhytomyr) and Win interactive (Vinnytsia).

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Although the Dnipropetrovsk outsourcing community may not be as high-volume as in Kyiv, Lviv or Kharkiv, the region stands out in its number of innovating R&D centers, product companies and startups. This is partially due to the region’s strong historical technical traditions of innovation in rocket science and the mechanical engineering and metallurgical fields. In fact, quite a few technology companies originated here who, in addition to offering traditional IT services, create their own innovative products in virtualization and security.

The region’s robust education base, together with its competitive engineer salary rates (Dnipropetrovsk salaries are 30% lower than in Kyiv, and 35% lower than in Vinnytsia, Cherkasy), attracts many international companies. Playtika, Siemens, ISM, Sitecore, Maxymiser, Wix, Transferwise, PosiTrace are just a few of the 26 global companies to trust the region with its innovation efforts in Gaming, Telecommunications, E-commerce, Software, Financial and Transportation Services.

In addition, some very successful global startups startups have now turned into mature companies with R&D teams in the region. These companies include Wix, Depositphotos, and Maxymiser (recently acquired by Oracle).

Dnipropetrovsk-based IT companies have recently launched the Dnipro IT Cluster, which intends to become a locomotive behind the region’s further technological advancement.

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IT INITIATIVES AND ECOSYSTEM IN
DNIROPETROVSK AND CENTRAL UKRAINE

IT-cluster

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Dnipro Tech Cluster
www.it-dnipro.org

Co-working spaces



365 Coworking
www.incubator365.it



I Coworking Hub
www.icoworking.net

Key community projects and events

IT Portal	A single portal for local IT events, trainings, courses, news – www.it-dnipro.org
Hire Dnipro	A promotional portal for potential IT clients and partners of Dnipropetrovsk companies – www.it-dnipro.org
Legal Protection	An initiative aimed at protecting local IT companies from arbitrary government inspections – www.it-dnipro.org
300 Startups Forum	Investment forum for startups and the IT business community www.it-dnipro.org
ITEM Conference	A major 2-day yearly conference http://item.dp.ua/en



Dnipropetrovsk river bank

IT INITIATIVES AND ECOSYSTEM IN
DNIPROPETROVSK AND CENTRAL UKRAINE

Selected private IT education



ITStep
www.itstep.org



SkillsUp
www.skillsup.com.ua



Hillel International
www.itschool-hillel.org



IT MOOCology Hub
Python School
www.itschool-hillel.org



IQ Lab
www.iqlab.ua



Porta One Courses
www.portaone.com



LevelUp
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SoftServe IT Academy
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IN THE CLIENT PORTFOLIO OF SOME COMPANIES
FROM DNIROPETROVSK AND CENTRAL UKRAINE

Company	Selected clients
	 MOTOROLA  EMC ²  NUANCE 
	 3E  Albitech Ltd.  jaccommo  3D Space PRO  aPriori  Exadel®  TaskPoint
	 room2care.com <small>born in your home - built to your taste - Room2Care</small>  Musketeer <small>Help anywhere, anytime.</small>  RENAULT  VOLVO  PHONE AND PAY  RIMED <small>For your peace of mind</small>  COLUMBIA LAW SCHOOL
	 NOVARTIS  Abbott <small>A Promise for Life</small>  SANOFI  CODESTERS <small>Coding Class for Kids</small>  STRATO  TEVA  GARAIOLABS
	 Mercedes-Benz Bank  IDG  LINKS LONDON  ACTON INSTITUTE  CNSI <small>Opérateur Intégrateur</small>  YouVersion®
	  Voki  STREET EASY  e  iB   The ACCENT Kit
	 ZEROLAG CLOUD SERVED  CRAFT  PrintSafari.com <small>High Quality Custom Printing</small>  kidisto.de <small>smart deals for kids</small>



Kharkiv average salary breakdown, USD, per month			
	Jr. Engineer	Mid Engineer	Sr. Engineer
Java	600	1,750	3,200
Java Script	600	1,600	2,840
C#/.Net	500	1,710	3,150
Obj. C	N/A	1,400	2,900
PHP	400	1,300	2,700
QA	400	1,100	2,200

Source: Dou.ua

Kharkiv is the second largest city of Ukraine. It is modern and comfortable city with developed infrastructure including airport, railway, subway and is located just four-hour drive away from Kyiv. Home to 142 higher educational establishments and research institutes, Kharkiv has been the scientific capital of Ukraine for decades and is well known in the world for its high-tech enterprises, such as: Hartron, Turboatom and others. Currently Kharkiv prepares specialists in 69 high education institutions, including 17 universities and 9 academies. Every year more than 200,000 students study in colleges and universities in Kharkiv. More than 2,000 IT professionals graduate per year from Kharkiv Universities.

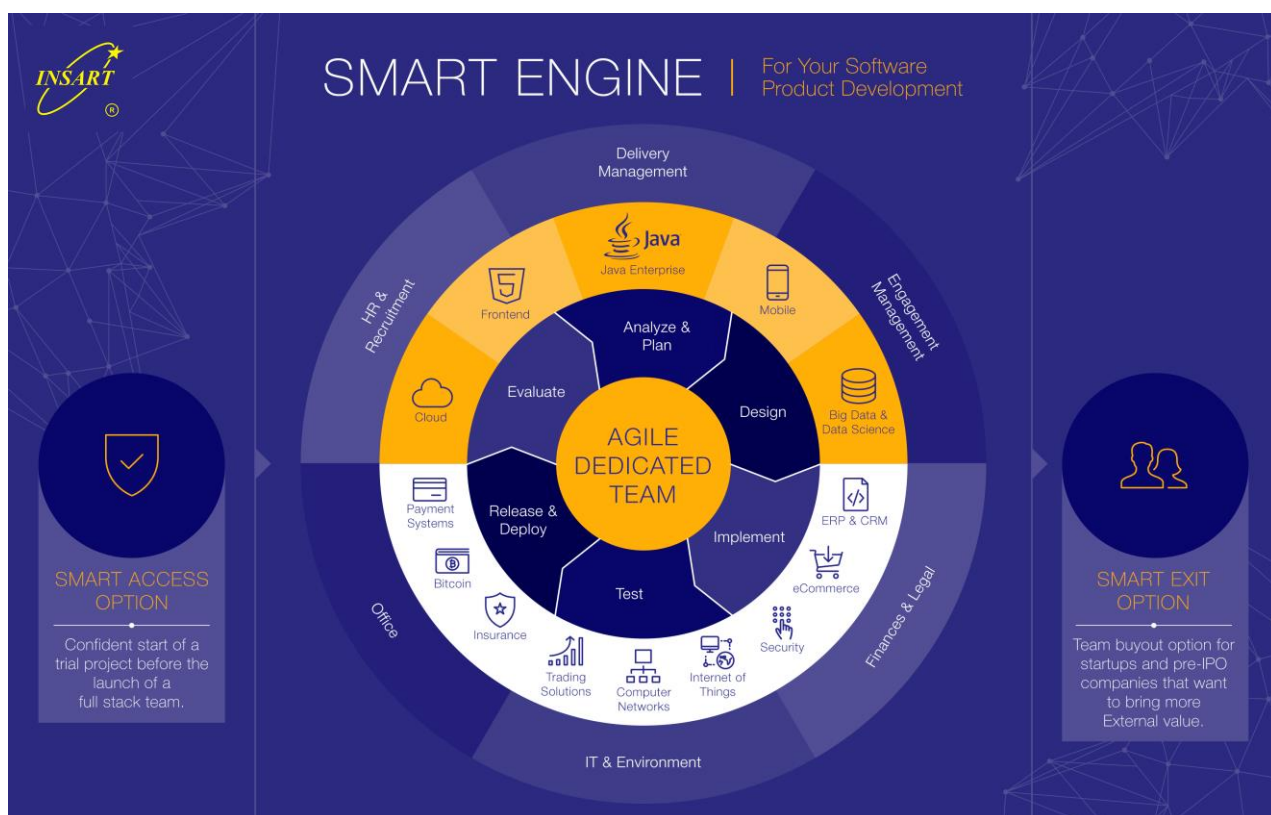
PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Over 22,000 IT professionals work in Kharkiv's 200 small and medium IT enterprises including service, product, freelance, startups companies.

Such outsourcing giants as Nix solutions, Sigma Software, QA Area and Team international are headquartered in Kharkiv. Among global companies Plarium, Mirantis, Gameloft, Grid Dynamics, TOA technologies, Huawei, Maxymiser and SightPower opened R&D offices in Kharkiv which work on Gaming, cloud, E-commerce, SAAS software, Telecommunications and Mining innovations.

In 2015, the largest Ukrainian and international IT companies formed a non-governmental organization called Kharkiv IT Cluster with the goal of turning Kharkiv into IT capital of Central and Eastern Europe. The main task of the Cluster is to develop an attractive environment for technology businesses. Kharkiv IT Cluster is supported by its members, local authorities and technical universities which together with the partner companies and individual volunteers help with the development of city's IT ecosystem which in turn would benefit the city's citizens by creating more IT jobs, higher tax revenues and more investment opportunities. Kharkiv IT Cluster is a "bridge" between Ukrainian and International IT Clusters and representatives of the IT businesses in the world.

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IT INITIATIVES AND ECOSYSTEM IN
KHARKIV AND EASTERN UKRAINE

IT-cluster



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Selected private IT education



EPAM Courses
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QAClub
www.qaclub.com.ua



S-Label
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IT Bursa
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GL Basecamp
www.globallogic.com.ua



Altexsoft Lab
www.lab.altexsoft.com



Brain Academy
www.brainacad.com



**Sigma Software
Training Center**
<http://sigma.software/for-students>



Smithysoft
www.smithysoft.com



TEAM International
www.teaminternational.com/education



Smart Academy
www.academysmart.com.ua

IT INITIATIVES AND ECOSYSTEM IN
KHARKIV AND EASTERN UKRAINE

Key community projects and events

Passion Talk	Video lectures about science, tech success stories and IT career
IT Legal Support	The initiative that is aimed to help local IT companies with potential arbitrary government inspections
IT Communications	Mini-conference on legal, finance and other aspects of IT industry for local professionals
KIDS2IT	IT education projects for high school students and their teachers
AI Ukraine conference	A yearly international conference on artificial intelligence http://aiukraine.com

INDUSTRY ANNOUNCEMENT



Kharkiv IT Cluster is an association of leading companies in the fields of IT services, software R&D and business process outsourcing (BPO). Established in 2015 with the support of local authorities and universities, the Cluster aims to support Kharkiv as a leading, internationally-connected IT hub in Central and Eastern Europe, and to share the values of a modern and open society.

<http://it-kharkiv.com/en/>

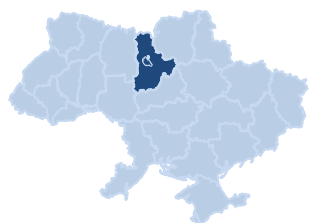
AMONG OUR PROUD MEMBERS:



IN THE CLIENT PORTFOLIO OF SOME COMPANIES
FROM KHARKIV AND EASTERN UKRAINE

Company	Selected clients
	       
	       
	    
	       
	   
	      

2.2. ANALYSIS BY REGION



KYIV

AND THE KYIV REGION

52+**Software outsourcing firms
with 80+ employees****52+****International
R&D offices****26,000+****IT professionals****38+****Universities and colleges
with technical education****16,000+****Technical graduates (2015)**

Kyiv, a city of more than three million, is the capital of the country and the main brainpower of the Technology Nation. The city's dominance rests upon a large number of universities, including technical education, with the highest concentration of students in the country. Four of Ukraine's major universities are located here: the Kyiv Polytechnic Institute, the Taras Shevchenko National University, the "Kyiv-Mohyla Academy," and the National Aviation University. Like other capitals, Kyiv attracts the largest fraction of national and international investors, the biggest conferences, numerous IT community initiatives, incubators, collaboration and co-working spaces etc.

The capital is home to more than a thousand startups and product companies. With such a vibrant IT community, the capital boasts the best and most expensive IT talent, with the average salary for an engineer approaching \$2,000.¹⁴ Kyiv has a well-developed business infrastructure and transportation system, including two international airports. Many companies have their official headquarters here for legal and business purposes, even though some players do not base their main technical office in Kyiv.

A study by Global Services-Tholons has included Kyiv among its "2014 Top 50 Emerging Outsourcing Cities."¹⁵ No fewer than 51 companies with more than 80 employees have an office here, including such IT giants as Ciklum, DataArt, DIO Soft, EPAM, GlobalLogic, Infopulse, Intro-Pro, Miratech, Lohika, Softtheme. In a ranking of app development companies offered by American research company Clutch, four Kyiv-based companies made it to the top 12 list. These include Alterplay, GBK Soft and Stanfy.

Kyiv has been historically and still remains Ukraine's main innovation hub. Many of the country's factories and plants have been located here – some for a century – manufacturing airplanes and tanks, and specializing in electronic and mechanical engineering. It is not surprising that over half of R&D centers are located in Kyiv, including Aricent, Boeing, and Siemens, among many others.

14. <http://jobs.dou.ua/salaries/>

15. http://www.tholons.com/nl_pdf/Tholons_Whitepaper_December_2014.pdf

IT INITIATIVES AND ECOSYSTEM IN KYIV



This Ukrainian NGO strives to develop an educational infrastructure with 100 000 new IT specialists trained by 2020 with the ultimate goal of making the IT industry a driving force of Ukraine’s economic growth. The foundation was established in 2014 by leading IT companies and with help of the ministry of economy. (More information about this organization can be found in the interview with its CEO Vladimir Liulka in Part 1.)



**Kyiv High-Tech
Cluster**

This cluster, under formation, is to combine a co-working space, a laboratory incubator and a platform for attracting investment. It aims to promote an entrepreneurial mindset and assist Ukrainian projects in reaching the global market. The cluster brings together IT firms, art specialists, designers, engineers, coaches, game developers and scientists.

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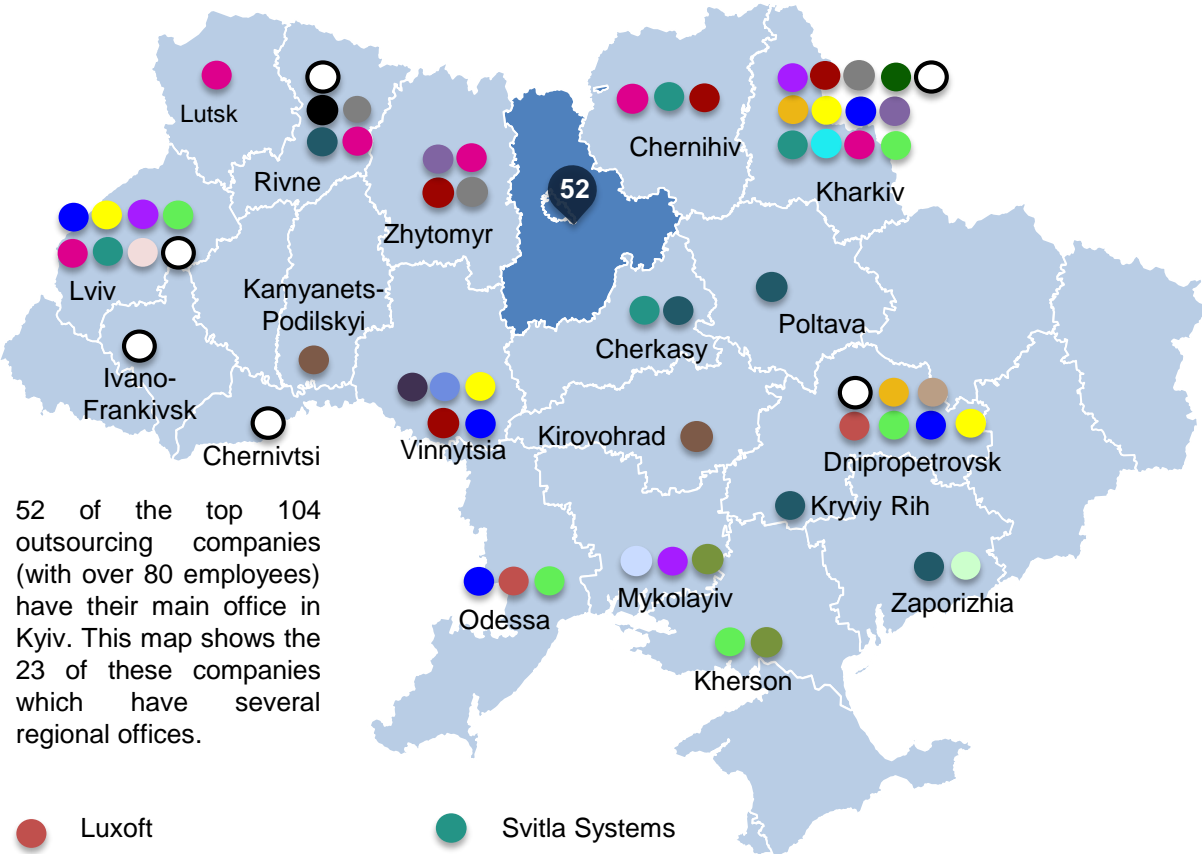


SoftServe IT Academy
<https://softserve.ua/en/university/it-academy/>



Softgroup Academy
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REGIONAL REACH OF KYIV-BASED IT SERVICE COMPANIES



- | | | |
|-------------|--------------------------|--------------------|
| Luxoft | Svitla Systems | |
| EPAM | Softengi | Krusche & Company |
| GlobalLogic | Global Network Solutions | Rokitt |
| Ciklum | DAXX BV | Marka Software |
| Softserve | Adyax | CodeRoom |
| Infopulse | DevelopEx | QA TestLab |
| DataArt | Innovex | Ignite Outsourcing |
| Soft Group | Intetics | Intego |

Top software R&D and IT outsourcing companies with significant presence in Kyiv



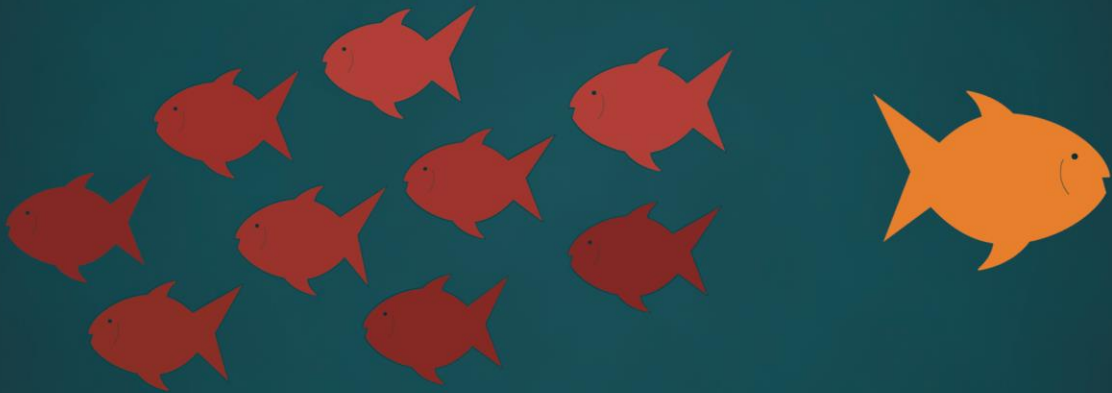
Source: Ukraine 2015: Brains, Hands and Grains

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

IN THE CLIENT PORTFOLIO OF SOME
COMPANIES FROM KYIV AND THE KYIV REGION

Company	Selected clients
	 Alcatel·Lucent       
GlobalLogic	     
 CIKLUM	      
infopulse	       
 softengi	   
 GREAT IT PEOPLE	   
 Open Source Experts	      
 MAKE A DIFFERENCE	   
 A trusted partner in software development	      
	   

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Soros fund invests in software engineering company Ciklum to help Ukraine “break from the past”

By Adrien Henni and Jane Kuhuk, Ukraine Digital News, Nov. 18, 2015

The Ukrainian Redevelopment Fund, a private investment vehicle launched by US businessman and philanthropist George Soros earlier this year, has announced its acquisition of “a significant equity stake” in Ciklum, a major software engineering company operating globally from its main office in Kyiv (Kiev).

The Ukrainian Redevelopment Fund is set to acquire the entire stake held by Horizon Capital, a leading Ukrainian private equity fund manager, as well as an undisclosed portion of the stake held by Majgaard Holdings Ltd. No capital injection is taking place.

The transaction, of which the details have not been disclosed, is expected to be completed by the end of 2015, subject to customary closing conditions and regulatory approval.

Founded in 2002 by Danish businessman Torben Majgaard, Ciklum has asserted itself as a leading player in Ukraine’s rapidly-growing IT scene. The company now employs more than 2,500 programmers. Facing growing international demand for software development services, Ciklum has recently opened a development center in Belarus – a former Soviet republic neighboring with Ukraine – together with another in Romania, and two in Pakistan, all in addition to its six locations in Ukraine.

“We intend to open additional development facilities in Poland and Spain by the end of the year,” the Ciklum press service told Ukraine Digital News.

Many of Ciklum’s clients are western companies developing their own products. No less than 25 of them have “reached the IPO stage with Ciklum’s development capabilities,” the company claims. One of these companies is Just-Eat, which was valued at more than \$2 billion when it went public in London in the spring of last year.

Ciklum itself is not ruling out an IPO, but has stated that, either way, it “will not happen in a short-term perspective.”

A SIGNAL FOR INTERNATIONAL INVESTORS?

“Soros’s Ukrainian Redevelopment Fund has made its very first investment in the IT sector,” notes Andrey Kolodyuk, whose company AVentures has drawn the attention of Soros and other international investors to this industry.

“This is a signal for the global investment community, showing it is time to step in and invest in the Ukrainian IT sector, which did not get the deserved attention in the past,” Kolodyuk added in an exchange with Ukraine Digital News.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Together with Soros, Kolodyuk has joined Ciklum's board of directors.

Andrey Kolodyuk (AVentures), George Soros, Yevgen Sysoyev (AVentures) and Torben Majgaard (Ciklum)

"I am very excited about my investment in Ciklum," Soros stated. "It is a very dynamic company in an industry that represents the future of Ukraine. It is also an investment in what I call the New Ukraine – Ukrainians who are young, well-educated, and eager for their country to break from the past and to build an open society. I hope that my investment serves as an example to other investors."

Soros has made his very first Ukrainian investment in the IT sector, note local players

The Ukrainian Redevelopment Fund presents itself as "a private investment vehicle which focuses on special situations and private equity investments in Ukraine" as well as "companies with significant operations in Ukraine." The fund targets investments which "have the potential to promote economic and social development in Ukraine."

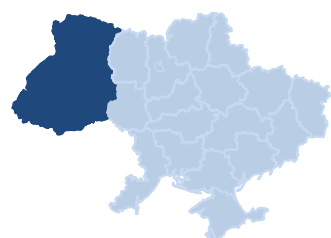
A LONG-STANDING COMMITMENT TO UKRAINE

In a separate move, the fund also announced today an investment in Dragon Capital New Ukraine Fund under the management of Kyiv-based Dragon Capital. Other investors may be invited to participate after the first closing of this seed-stage round. The New Ukraine Fund will invest and bring managerial support in a wide range of sectors of the Ukrainian economy to support long-term growth, the Interfax Ukraine news agency reported.

Hungarian-born George Soros has been supporting Ukraine's transition to a free society since the early 1990s through the Open Society Foundations, which he founded. The International Renaissance Foundation, which is a part of the Open Society family of foundations, played a noticeable role supporting civil society during the Euromaidan protests, and continues to "work with civil society to achieve essential reforms and help citizens" from annexed or war-torn areas of Ukraine.

Soros believes that "the new Ukraine is the most valuable asset that Europe has." Earlier this year, he developed what he called "a winning strategy for Ukraine" and circulated it among the European authorities – with some influence, if judging by the reaction of pro-Russian activists who view Soros as a "behind-the-scene puppet-master" in Ukraine.

This article first appeared in Ukraine Digital News www.uadn.net/?p=32890



LVIV AND WESTERN UKRAINE

- 32** Software Outsourcing companies with 80+ employees
- 14** International R&D offices
- 15,000+** IT professionals
- 17** Universities & colleges with technical education
- 15,000+** Technical graduates (2015)



Lviv average salary breakdown, USD, per month			
	Jr. Engineer	Mid Engineer	Sr. Engineer
Java	570	1,900	3,200
Java Script	700	1,600	3,000
C#/ .Net	500	1,710	3,150
C++	700	1,500	2,700
Obj. C	700	1,500	3,000
PHP	200	1,300	2,500
Ruby/Rails	850	1,500	3,300
QA	500	1,200	2,100

Source: Dou.ua

Western Ukraine led by Lviv comes third by number of IT outsourcing companies, after Kyiv and Kharkiv. Although Lviv is a primary driving force behind the IT development of its region, Ivano-Frankivsk, the cities of Rivne and Lutsk add to that growth. The region is home to such huge IT outsourcing giants as Softserve, Eleks, Intellias, N-iX, Malkos and many others. Lviv-based N-iX and Perfectial made it into twelve top Ukrainian IT development company ratings, published by American research publisher Clutch.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Western Ukraine is the closest to Europe both by distance and mentality. It borders with four European Union countries including Slovakia, Hungary, Romania and Poland, with which it has cooperative business and political relations.

The region has managed to attract a number of international companies that have based their R&D facilities in Lviv. Polish Ericpol (acquired by Ericsson in October, 2015), American Oracle, Danish Keel, British onApp and many other global companies have a development office in Lviv, where engineers work on innovation in telecommunication, mobile workforce, and ADM for oil and gas respectively.

As of late 2015, Lviv has been named the most digitalized city in Ukraine as a result of its active IT community, which works together with the city government to turn Lviv into a major European IT hub. Their joint efforts have initiated the implementation of e-government in the city, facilitating the interaction of the city's population with banks and the local authorities.

Lviv and Lutsk have formed IT clusters that unite top regional IT companies to facilitate the development of IT infrastructure, IT education and lobby industry interests in the government.

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**TOP IT
EMPLOYER
IN LVIV**



2010-2015

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From networking, to education, to housing, Lviv IT Cluster aims to create favorable conditions for businesses

By Yuliana Romanyshyn, The Kyiv Post, Dec. 4, 2015

When Stepan Veselovskyi, 28, became the CEO of Lviv IT Cluster at the beginning of 2013, the organization united only four companies. Now, it gathers 34 information technology businesses and continues to expand.

“Over the last three years we have grown into the largest operating organization of its kind in Ukraine, but we still remain a local one,” Veselovskyi said.

Before joining Lviv IT Cluster, Veselovskyi worked at the Lviv City Council and at municipal analytical center City Institute.

In 2013, he launched Startup Depot, the first co-working place in Lviv. “We had an idea to create a project that helps entrepreneurs to build their business,” Veselovskyi said.

Later, he developed the same concept at IT Cluster.

To boost professional networking, Cluster organizes one of the biggest IT conferences in Ukraine: Lviv IT Arena. In 2015, it brought together 1,400 developers, entrepreneurs, top managers, designers, and programmers.

“We made the conference from scratch, and it became a success,” Veselovskyi said.

He has an ambitious plan to throw a conference for 10,000 participants in 2016.

“We do it all in order to invite businesses and people and boost the role of Lviv and Ukraine in the IT world,” he said.

The cluster believes local IT firms will be spared brutal inspections from government bodies thanks to close ties with the mayor.

In addition to communication and education, Lviv IT Cluster focuses on infrastructure. The organization ordered the construction of an apartment building where flats are offered only to employees of the companies that are members of the Cluster. Construction began in mid-October, and most of its 72 apartments have already been sold.

Veselovskyi says that the cluster didn't profit from the construction, but did it for PR reasons, to emphasize the city's support for the industry.

In recent months, some top Ukrainian IT companies have suffered from brutal inspections from certain government bodies, which searched their offices, seized important data and equipment. Veselovskyi believes that this would not happen in Lviv thanks to the close ties his organization has established between the companies and city authorities and re-elected mayor Andriy Sadoviy.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Veselovskyi says that tight cooperation with IT companies is part of the Lviv authorities' development strategy. He says the IT industry will pay around \$12.4 million in taxes in 2015, while the planned yearly budget of Lviv is \$180 million.

"Who among the officials, realizing that this is the basis of the city economy, will cut the branch on which they sit?" he asked.

Veselovskyi ran for City Council in the October 2015 election, but lost. He says he and his team aimed to "provide the council with intellectual capital, because people from IT have an understanding of innovation, globalization, and competition on the global market."

The next step for Veselovskyi and Lviv IT Cluster is building an IT Park – a huge space that will provide offices to IT companies, as well as hotels, restaurants, and conference rooms. He says that the park will be a place to launch new companies and develop old ones.

"And that would be a landmark of the city," he said.

This story first appeared in the Kyiv Post.. The author can be reached at romanyshyn@kyivpost.com

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AltexSoft CEO Alexander Medovoy: "Far beyond coding, software development now combines technical knowledge, domain expertise and value-added services"

Founded in 2007, AltexSoft employs more than 150 programmers in three Ukrainian cities (Kharkiv, Kremenchug and Lviv) to serve clients from the USA, Canada, Western Europe and Israel. Its fields of expertise include travel and booking, financial and banking technologies, healthcare technologies, e-commerce and retail, as well as aviation and transportation. Founder and CEO Alexander Medovoy shares his vision of current industry trends and provides a few examples of challenging projects.

– In your opinion, what are the most important trends on the Ukrainian IT scene?

IT service companies – AltexSoft being no exception – tend to transform the way of running businesses towards providing full-cycle development services.

The Ukrainian IT industry as a whole is moving towards more sophistication. Specialists are getting more professional and creating more advanced solutions. There is no coding any more. Software now combines technical knowledge, domain expertise and value-added services.

IT companies have started to supplement software development with a range of services, including technology consulting, business analysis, user experience design, and data science. This provides the groundwork for building turnkey solutions.

Another trend is that of companies joining forces to grow together. Over the last year no fewer than six IT clusters have been formed in the largest Ukrainian cities to improve the industry's prospects. These initiatives have already brought noticeable changes, among them events and support activities in the fields of education and training as well as knowledge sharing. As Henry Ford said, "Working together is success." I could not agree more.

– Tell us a bit about some of the challenging projects developed by your company.

We find great market opportunities in value-added services. One such project is Fareboom, where we fully redeveloped an outdated system by adding predictive modeling and algorithms, updated UX design and visual design. This system deals with forecasting prices for air tickets. Based on the collected data, the software combines flights, applies airline discounts in complex scenarios, helps customers change their itineraries for the cheapest possible alternatives and predicts the movement of fares up to several months in advance. This solution creates a competitive edge for Fareboom.com as a booking platform for international flights.

We've also developed a number of healthcare products. As an example, our developers have recently built a professional web application for dentists which has an integrated sleep-tracking system for identifying bruxism through sound recognition. Machine learning algorithms were used to develop this application.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

Another exciting project of ours is called Bravo Store Systems. The client is a major player on the US market of multi-channel point-of-sale solutions. The product is enterprise level in-store and online POS software, offering e-commerce capabilities, a professional product evaluation and assessment tool, and CRM features.

The AltexSoft team provided a range of services for the client, including architecture redesign, database restructuring and migration, and UX improvement. What the client got as a result was unlimited scalability, secure and stable processes, ease of use and lower maintenance cost of the solution.

– What are your plans and challenges for the future?

We're expecting to undergo a serious transformation in the following three to five years. We aim to become a firm primarily providing not just software engineering, but comprehensive software solutions, no matter the scale and the complexity of the problem the solution addresses.

I expect the market, and AltexSoft, to continue growing. Inevitably we'll need to address more complexities in processes and management. This is why we aim to establish flexible and people-friendly processes, so that there is no interruption in company operations as new employees come aboard. As CEO I need to personally nurture strong management competencies in-house, or bring them in from outside.

Mr Medovoy can be reached at a.medovoy@altexsoft.com

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The advertisement features a background image of a historic stone building, likely a church or castle tower, with a blue sky and white clouds. Overlaid on this are several dashed white lines forming a circular path. The text 'LITAC' is prominently displayed in large, bold, black letters with a blue arrow pointing right. Below it, 'Lutsk IT Cluster' is written in a similar bold, black font. To the right of the cluster name, the website 'www.litac.org' and email 'info@litac.org' are listed in white text on blue rectangular backgrounds. In the bottom left corner, the text 'Our projects:' is followed by three logos: 'IT WORK' (blue and black), 'EDU-UP' (white text on a green rectangular background), and 'ROBO PRACTICA' (blue text with a robot head icon). To the right of these is another logo consisting of two stylized blue 'M' shapes.

LITAC

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Our projects:

IT WORK

EDU-UP

ROBO PRACTICA



Victor Haydin, Head of Products and Services at Eleks: "We are shifting away from a classic outsourcing company to a solution-oriented business."

Starting in 1991 as a company with its own software products, ELEKS has evolved into a major custom product engineering and technology consulting firm. Headquartered in Lviv (western Ukraine) with offices in the USA, Poland and the UK, ELEKS now provides end-to-end offshore software product development worldwide. It employs approximately 900 professionals in Ukraine.

– How do you present your core offer ?

As a product engineering service company, we strive to deliver the best possible product development methodology, technical expertise and industry insights to our clients. We act as if we were an in-house team, allowing our clients to focus on their strategy and achieve market success. We have produced innovative and award-winning solutions in the fields of data science, mobility, wearables and digital products, significantly contributing to the success of our customers – be they innovative startups or global companies.

– Which of your recent projects had the strongest R&D component?

Among the most notable examples were projects to build new-generation risk management systems for the large investment portfolios of leading global financial organizations. These systems use sophisticated mathematical models and methods such as Monte Carlo. They also leverage state-of-the-art parallel computation platforms such as GPGPU, offering near-real time performance on a scale and speed which were unimaginable just five years ago.

We also designed a product which revolutionized the way people search digital brands and videos. Developed for a big USA startup, this product featured a matching system capable of handling more than 20 million images and thousands of hours of video. With an extremely fast, GPU-based implementation of an in-memory search algorithm, users have their requests executed in just a few moments, while a matching algorithm – running on dozens of GPUs – searches over millions of images simultaneously.

– Could you elaborate on the concept of "proactive R&D"?

For those who are passionate about technology, as we are, proactive R&D means the early adoption of new technologies and their promotion among our customers, as well as the readiness to do what neither we nor anyone else has ever done before. This proactivity enables us to implement the most ambitious ideas, bringing extra value to our customers and helping us further develop our own expertise. We have been practicing proactive R&D since the launch of our in-house R&D lab four years ago.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

– Does ELEKS work with startups? What are the benefits for startup entrepreneurs of working with ELEKS?

We do work with startups, although they are not our primary customers. Startups are usually very innovative and dynamic, so they challenge us and allow us to develop new capabilities. We typically have a couple of new startup clients every year, and this cooperation includes a large amount of R&D.

In the area of the Internet of Things, we have recently explored the domain of connected cars with a successful experiment of controlling Tesla's Model S via a smartwatch. Another of our R&D projects involved smart-home components such as an internal weather station. One more item we have recently released is a web-based WebGL application to preview car interiors in 3D on a mobile device. The app also allows users to explore the car interior details in a "virtual reality" format by inserting their smartphone into Google Cardboard.

Yet another project tapped into augmented-reality space: developed for a startup from the advertising industry, the app enables users to see interactive content after exposing special marker pictures to their smartphone cameras.

In general, each of these projects involved a great deal of unpredictability at the starting point because we literally had to gain new expertise in the course of the project.

– What is ELEKS Digital? How does ELEKS manage to nurture innovation from within the company?

ELEKS Digital is merely a representation of our Product Engineering Services in what is called digital space, which is mainly related to the media, entertainment and advertising industries. For big brands and digital media agencies we build products whose key differentiation is that they are very user-centric. User experience and consumer experience are essential aspects of these products, requiring a lot of usability research.

To nurture innovation from within a company, we have implemented the ELEKS Labs Platform program, which enables us to come up with new ideas and check their feasibility.

Once an idea is shaped, a small multifunctional team of volunteers has four weeks to implement its basic functions and prove that the concept has some commercial potential. The ELEKS Labs Platform is open to all enthusiastic people willing to participate in the R&D process.

This is how we connect people with ideas and let them express their energy and use their skills to bring these ideas to life. The process is very straightforward: anyone within the company can submit an idea on the corporate portal; then a small committee of experts reviews these ideas and consider them in a technical, market and business perspective. When an idea is approved, the selected project is presented internally so that other people can volunteer to implement it.

– What are your plans for the foreseeable future in terms of offer and target markets?

We are currently shifting away from being a classic outsourcing or "staff augmentation" company to a solution-oriented business. Speaking of R&D, we are actively extending our expertise in the IoT, which has made a buzz in the business communities lately. As for geographical expansion, we are moving closer to our customers' markets with new delivery offices planned in EMEA and North America.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

– How did the recent political and economic turmoil in Ukraine affect your company? Did you notice a more cautious attitude from the client side?

It is hard to measure the impact. In fact, ELEKS has been constantly growing since its establishment in 1991. Of course, our growth has slowed down due to the recession – but it has not stopped.

Our operations and delivery have been stable, we have not experienced any significant change in the volume of work for our existing customers – we even see some growth here. Furthermore, new customers keep coming in. They are attracted by the R&D component of our offer and the value-added services we can provide.

– What trends do you see in Ukrainian and/or global outsourcing & R&D development?

A continuation of the current general trend toward value-added product development and product engineering services is almost inevitable. As the staff augmentation business becomes more and more commoditized, the labor-cost arbitrage inevitably results in price equalization and margin erosion. Large market players are not able to maintain prices high enough, so the margin is getting lower – which is a bad thing for businesses.

The best way to reverse this trend is to concentrate on value-added services, which also means that vendors should advance their product management skills to master not only the technological part of the equation, but also to understand the business and user expectations. The classic outsourcing model – the staff augmentation model – has created fertile ground for this type of service. We have sufficient technological expertise, an extensive pool of engineering labor, plus a rigorous and orderly attitude toward technology, engineering, math and fundamental sciences – all of which together creates a strong foundation for further development in the R&D space.

Mer. Haydin can be reached at Victor.Haydin@eleks.com



Eleks has developed the Tesla app for Apple Watch

IT INITIATIVES AND ECOSYSTEM
IN LVIV AND WESTERN UKRAINE

IT-clusters



Lviv IT Cluster



Lutsk IT Cluster

Selected annual industry events

LIOF – Lviv International
Outsourcing Forum (March)

Lviv IT Arena
(October)

GDG Dev Fest Lviv
(October)

Key community projects and events

IT Expert, Lviv	Modernizing IT education
IT House, Lviv	Housing for IT specialists
IT Club, Lviv	Lviv IT community club
IT law committee, Lviv	Discussing and resolving legal issues
IT Roadshows, Lviv	Tours of IT specialists from Lviv to other Ukrainian cities to share experience and network
IT Future, Lviv	Educational projects
Edu-Up, Lutsk	Modernizing IT education in Lutsk universities
IT WorkUp, Lutsk	Events and training programs for HR professionals, students and employers seeking professionals in the IT industry
Robopractica, Lutsk	Robotics lab
IT practice, Lutsk	Student internships in IT companies

IT INITIATIVES AND ECOSYSTEM IN LVIV AND WESTERN UKRAINE

Selected private IT education



AltexSoft Lab
www.lab.altexsoft.com



Brain Academy
www.brainacad.com



CyberBionic Systematics
(Microsoft training center)
<http://edu.cbsystematics.com/en/>



Eleks University
www.eleks.com



EPAM Lviv
IT training center



GL Basecamp
www.globallogic.com.ua



ITStep
www.itstep.org



Logos
<http://lgs.lviv.ua>



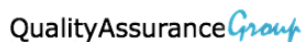
Lviv IT School
www.lits.com.ua



SQA QA School
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Technology Management
at Lviv Business School
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Quality Assurance Group
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Softgroup Academy
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SoftServe IT Academy
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Co-working spaces



Betaplace
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COMEIN
<http://comein.lviv.ua>



Communa
www.communa.net.ua



GODO Co-Working
www.godocoworking.com



iHub Lviv
<http://lviv.ihub.com.ua>



OK Factory
www.okfactory.eu



Pixel
<http://pixel.lviv.ua>



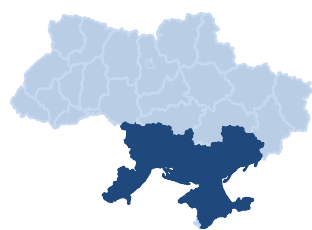
Startup Depot
<http://startupdepot.lviv.ua>

Creative Quarter

The Creative Quarter Complex is a prospective 15,000 square meter facility consolidating location and services for work, creativity, learning, leisure, entertainment. Creative Quarter is the crossroads for engagement and collaboration for professionals with an international perspective to meet, collaborate and learn from each other; especially in the areas of technology, creative, and media verticals. Through the creation of a neutral space, survival and communications meet as technology and art. The space allows technology and artistic individuals to meet and co-operate under one roof; from Ukrainian Entrepreneurs, IT professionals, journalists, advertisers, arts and social figures. The creative quarter initiative is supported by Softserve, Intel, Cisco, Ericsson, HP, Microsoft, Schneider Electric, Lviv government and others.

IN THE CLIENT PORTFOLIO OF SOME COMPANIES
FROM LVIV AND WESTERN UKRAINE

Company	Selected clients				
	 	 	  		
	 	 	 	 	
 Intelligent Nearshore Outsourcing	 	 	 	 	
	 	 			
	 		 		
	 	 	 		



ODESSA

AND SOUTHERN UKRAINE

- 28 Software Outsourcing companies with 80+ employees
- 23 International R&D offices
- 8,000+ IT professionals
- 10+ Universities & colleges with technical education
- 10,000+ Technical graduates (2015)



This introduction has been contributed by Alexander Bornyakov, a prominent figure of the Odessa IT scene. An investor in several businesses, Mr. Bornyakov is Managing Partner at software development company Intersog (www.intersog.com).

Odessa is one of Ukraine’s top five IT hubs with over 150 IT companies as of late 2015. Roughly half of them are IT service providers, the other half are software publishers.

Among the largest outsourcing providers based in the region are GeeksforLess, Intersog, Provectus, and HYS Enterprise. Such other large players as Ciklum, DataArt, ISD, Global Logic, Logika, Luxoft, Sigma Software have their headquarters in other locations but also have an office in Odessa.

Odessa median salary breakdown USD, per month as of late 2015	
Java Software engineer	2, 000
Java Script Software engineer	2,000
C#/ .Net Software engineer	1,500
PHP Software engineer	1,600
QA Engineer	1,400
Junior Software engineer	600
Software engineer	2,000
Senior Software engineer	3,300
System Architect	4,500

Source: Dou.ua, Intersog

In addition to five technological universities, the city has several popular IT coaching centers which provide advanced training in software development, UX/UI design, QA and testing, and other IT disciplines. Some IT companies operating in Odessa have their own IT training centers to help grow and nurture junior tech talents. Among these corporate training centers ate Intersog Labs, IT Step and Fabrika IT Courses.

PART 2: THE UKRAINIAN IT OUTSOURCING INDUSTRY

The Odessa IT community is very active, with a number of professional groups and meetups such as Odessa Google Developer Group (GDG), Java group, Python/Unity user groups, DevLab, Intersog's Hack'n'Tell, and others.

Launched in August 2015, the Odessa IT Cluster gathers several dozens of service companies and publishers, including Augmented Pixels, Ciklum, Clickky, DataArt, Intersog, Lohika, Luxoft, NetCracker, Provectus, Sigma, and others. The Cluster aims to improve local tech education, raise the city's investment attractiveness and improve the collaboration with the local authorities, as well as to share knowledge and deals in order to keep them within the region.

There are 23 R&D offices of multinational companies in the Odessa region, including those of Comodo, DIDWW, Netcracker, LogNET, Opera, Social Quantum, Teradek, and others. They develop innovative products and services in the fields of information security, e-commerce, telecoms, gaming and video.

The region is also home to several internationally-renowned startups, in particular Augmented Pixels, Kwambio, Looksery (which was acquired by Snapchat for \$150 million in September, 2015),¹⁶ Readdle and Slice (acquired by Rakuten).

16. <http://uadn.net/?p=32662>

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IN THE CLIENT PORTFOLIO OF SOME COMPANIES
FROM ODESSA AND SOUTHERN UKRAINE

Company	Selected clients
 Your Trusted IT Partner	     THE EXCHANGE GROUP
 PROVECTUS	   
 RIDING TECHNOLOGY WAVE	     innovative mobile solutions  
 envion software	    

IT INITIATIVES AND ECOSYSTEM
ODESSA AND SOUTHERN UKRAINE

IT-cluster



Odessa IT Cluster
<http://it-cluster.od.ua>



Co-working spaces



Impact Hub
www.impacthub.odessa.ua



Terminal 42
www.terminal42.com.ua



iQSpace
www.iqspace.od.ua

Key community projects and events

Introduction to IT	A semester-long initiative featuring weekly meetings between college students and local IT companies
Legal Committee	This committee aims to protect the legal interests of local IT companies
Municipal Internet access	TeNet , a privately-held company, has announced an initiative to provide free wi-fi across the entire city of Odessa
BlackSea IT Summit	An international conference on technologies and entrepreneurship
Odessa Innovation Week	A week of IT-events: web design, development, project management, startups and investors.

IT INITIATIVES AND ECOSYSTEM ODESSA AND SOUTHERN UKRAINE

Selected private IT education



Hillel International
www.itschool-hillel.org



ITStep
www.od.itstep.org



iQSpace
www.iqspace.od.ua



Fabrika IT courses
www.fabrika.od.ua



Intersog Labs
www.intersoglabs.com



School of professional programming
www.it-school.com.ua

Incubators



Founded in 2012, WannaBiz became one of the most active startup incubators in Ukraine. In September 2015, however, WannaBiz announced its transformation into a venture fund, virtually stopping its incubation activity.¹⁷



The iQSpace business incubator launched in Odessa in December 2015 to promote both entrepreneurship activity and IT literacy. It has three activity areas: a technology school, lectureship and an IT incubator.¹⁸

17. <http://uadn.net/?p=32753>

18. <http://uadn.net/?p=33225>

IT UKRAINE FROM A TO Z

P A R T 3

IT OUTSOURCING: CLIENT INTERVIEWS & TESTIMONIALS



SourceSeek co-founder Dave Hecker: “Finding an ideal software vendor is like looking for a spouse – a partner with the right personality”

SourceSeek finds and engages developers in a variety of technologies: PHP, Node, Javascript, Python, Ruby, embedded, Java, .Net, Meteor, and more. The agency matches international clients with software vendors from Ukraine, Argentina, Vietnam, China, Philippines and West Africa. Agency co-founder Dave Hecker shares his analysis of the global IT outsourcing market and Ukraine's attractiveness.

– What trends do you see in the global outsourcing world? How is the landscape shifting?

We see a few emerging popular destinations like Vietnam and West Africa, Ghana in particular. While those places are usually very cheap, they still lack one or more of the three essentials for outsourcing business: 1. good currency exchange; 2. solid education system; 3. non-interfering government. Although these newer destinations have potential, it will be a while until they produce the senior IT managers necessary for complex projects. In that way Ukraine stands out – it is relatively cheap and has plenty of senior management talent that moved to agile development some time ago. Hence Ukraine is by far the favorite destination for our European clients.

Another big trend that we see is one in clients' attitude toward outsourcing. If before they treated outsourcing like cleaning a suit, now they understand the necessity of building relationships with the development teams, that sending a code specification is not enough to receive the product you want. Outsourcing is rather like a marriage: it requires dialogue and the development of a long-term bond. This fundamental shift in attitude is likely to result in higher product quality and client satisfaction.

– How do you think Ukrainian developers stand out in comparison with other countries?

Ukraine has a number of attractive characteristics. First, the country has a very good educational system and people that are good at math, analysis and science. Second, we hear from clients that Ukrainians take their jobs very seriously, treating the smallest task like a space launch. Third, we have seen that people in Eastern Europe, including Ukraine, find it very easy to speak up and express their opinion. This is great because communication and good teamwork are often required for finding the best technical solution.

Finally, I think Ukrainian IT companies have done a very good job of raising the level of English proficiency among their engineers. They spend substantial money on teaching their developers English.

– What advice would you give to companies hiring tech talent abroad?

I usually tell clients not to look for a roadmap or a magic formula since there isn't one. Finding an ideal software vendor is like looking for a spouse. Every company is different – not in skills and expertise, but rather in their work processes, operations and even personalities. So do not look for the skill, look for the company with the right personality.

– How does SourceSeek distinguish itself from recruiting agencies? What is your expertise?

This organic process of successfully matching personalities is actually our secret source. As I said before, we believe that outsourcing works like a marriage: unless the vendor and the client are compatible and ready for long-term commitment, the partnership is not going to last.

Mr. Hecker can be reached at dhecker@sourceseek.com



ASG Senior VP Pascal Vitoux: "Keeping our IP in-house is important, but many projects require flexibility while keeping costs aligned to revenues."

Founded some 30 years ago, ASG creates sophisticated software to help major businesses – including a large fraction of global Fortune 500 companies – address changes in business processes and optimize their existing IT systems. With nearly 100 different products, the company focuses on systems management and content/metadata management. Pascal Vitoux, Senior Vice President of Development & CTO, shares his vision of today's outsourcing challenges and describes his collaboration with the Ukrainian IT firms Apriorit, SoftServe and KSF.

– Why did you feel it would be relevant to outsource R&D?

The first reason why we have been looking for outsourcing partners is to keep costs under control while expanding our resources level. As a software vendor, it is critical that we keep our IP in-house and increase/protect the company assets for our financial shareholders. However, we often have projects where we need to increase/decrease bandwidth in a variable mode while keeping costs aligned to our revenue.

Secondly, some projects require very specific knowledge. This expertise can be difficult to find and may not be required on a full time basis. For instance, our collaboration with Apriorit, with their expertise in low-level system programming, is invaluable to us today. Projects requiring this kind of expertise are always redirected to this company.

In Ukraine, we also work with SoftServe (pure Java development) and KSF (QA).

– You worked with partners in several countries before ultimately choosing Apriorit, a software development partner in Ukraine. Which countries did you try and why did you finally choose Ukraine?

We had been working with India (where we still have a very limited number of resources) and Romania. The challenges for us with India were turnover and also distance, both from a physical and cultural standpoint.

We went to Ukraine because it is closer to us – but also because we could find the right skills there.

– What have been the positive and the negative sides of working with Ukraine?

Among the positives is the attitude of Ukrainian developers. Focused on delivering quality and doing it on time, they also take responsibility when they do not succeed – instead of fingerpointing (as in, "You have not provided sufficiently detailed enough specs" or the like). This, in an agile model, is critical to us.

Another good point is proximity: being in the same time zone is a very positive point for us.

The main negative point to date has been the uncertainty of the political situation in Ukraine, which has led our stakeholders to recommend we reconsider other options, such as Romania.

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Mr. Bacon,
major Nerd



Madberry co-founder and CEO Dmitry Sverdlik: "Like Israel, Ukraine may build a fantastic tech sector in spite of external threats"

Helsinki-based Madberry offers a global automated advertising system specially designed for game companies. The company does not outsource its research and development works; yet it has launched an R&D center in Kyiv (Kiev) in partnership with Ukrainian IT firm Innovecs. Dmitry Sverdlik, Madberry's co-founder and CEO, explains the strategy behind this offshore center and speaks frankly about the Ukrainian high tech and business environments.

– Please tell us a bit about your product.

If you are a game company and you've just rolled out some new mobile free-to-play game, striving to attract users into that game in order to monetize them through in-game payments, our product is a great tool for that.

This technology predicts the behavior of specific gamers in specific games. We are able to determine precisely the probability that a gamer will be interested in a game advertisement, click on it and download it. We can also predict how long he will spend inside the game, whether he will pay, and how much, whether he will share the game with friends, when he will uninstall it, etc. In fact, we know what a gamer wants even better than he does!

We use this prediction magic during the live advertising campaign, to ensure that advertisement banners or videos are only shown to most responsive audience. This approach allows game companies to acquire super suitable users and minimizes user acquisition budget at the same time. As a result, general game monetization improves by up to three times.

– What is your offshoring strategy?

We don't outsource our engineering; all research and development are accomplished by our own employees. I believe this is absolutely critical for us at our current stage to make sure that our R&D and product teams work very closely, in the common mental space. Also, an in-house R&D team is a critical asset for a tech company, impacting significantly on our market valuation. So we keep it all in-house.

Meanwhile, we benefit from the offshore development model. With our headquarters and core team located in Helsinki, we've launched our R&D center in Kyiv and are set to develop it further. I expect that, within the next 8-10 months, we will be hiring about 20 engineers and scientists in Ukraine.

US-Ukrainian outsourcing company Innovecs is involved in this offshore development center model. We rent their office space, since the infrastructure is really good. We're using their tech scouting team and are really happy with the results.

Innovecs has a wide experience of hosting international tech companies. This cooperation has made the first step in Ukraine much easier for us as an international startup.

PART 3: IT OUTSOURCING – CLIENT INTERVIEWS & TESTIMONIALS

– What are, in your view, the pluses and minuses of working with Ukraine?

In my previous project we had our headquarters in NYC and R&D in Kiev. Now my headquarter is in Helsinki and R&D in Kyiv again. Based on this extended experience of offshoring engineering in Kiev, I believe it is a very balanced and cost-effective scheme for a tech business.

I believe that modern Ukraine has one of the best value-cost balance among typical offshore locations. If you examine its geographical location, the cost of engineering resources, national educational level, the maturity of its hi-tech ecosystem, and its cultural specifics and taxation terms, you will struggle to find a better place in which to extend your team.

At the same time there are significant pain-points related to Ukraine. I would count three main factors:

- The local engineering mentality. In my view it is not fully compatible with product-oriented thinking, which is a characteristic of the western engineering culture. In large Ukrainian IT outsourcing companies, most engineers get used to a rather quiet working style, a less aggressive one than in many western companies. Ukrainian engineers often try to remain in their 'comfort zone,' they avoid going beyond the scope of their competence. Nevertheless, Ukrainians often dive deep into clients' problem. And when you work with relatively small teams, you can implant proper culture without much difficulty. I don't see significant cultural differences between my Ukrainian team and those I've been working with in Silicon Valley.
- Corruption and the inadmissible behavior of the police and taxation authorities. As a result of this point, many entrepreneurs there feel uncomfortable and unsafe. This may prevent international tech companies from expanding in Ukraine.
- I would put the war in the East in third place. It is a negative factor, but Israel is a good example of how to build a fantastic tech sector in spite of a permanent external threat. I believe that overcoming the first two problems in the list will make Ukraine the perfect place for R&D.

– Has the recent economic crisis in the country affected your operations in Ukraine?

I believe the crisis can even be an advantage if you know how to benefit from its opportunities, and how to avoid its threats. Investing when the market is down is a good strategy when you know where is the red line. I suppose I know where it is, and continue to invest in my Ukrainian team.



"We do not consider our Ukrainian partner as an outside vendor but an extension of our development team," says US business management software publisher

Matt Gabrielson, president of a Utah-based publisher of business management solutions, explains the reasons for choosing a Ukrainian software engineering company to outsource its R&D.

– Tell us a bit about your product(s) and why you felt it would be relevant to outsource R&D?

Our application is a tightly integrated CRM-ERP-POS feature stack which serves indirect channel dealers for various service providers. The application was first developed in 2001 and has been continually enhanced over the years, but we needed more feature throughput to engage in new markets. We decided to split our development team into dedicated Bug Fix and R&D business units to achieve the end results. Outsourcing our R&D reduced the internal dev support load from those resources and gave them the flexibility to be more creative with higher output.

– You worked with partners in several countries before ultimately choosing Ukrainian software engineering company Apriorit. Which countries did you try and why did you finally choose Ukraine?

Over the last decade, we have worked with external development companies located in various countries, including: India, Costa Rica, Canada, Philippines, and finally Ukraine. We've engaged with Apriorit for almost two years and are very satisfied with the outcome.

Ultimately our decision for a continued relationship with this company was based on several key factors:

- strong business leadership that is customer centric
- intelligent and diligent professionals within each specialty (PM, BA, Dev, QA)
- overall desire to produce quality outcomes
- acceptable time zone shift to enable daily, direct communication with the Apriorit team
- excellent internet connection for the aforementioned communications

– What have been the positive and the negative sides while working with Ukraine?

Our experience is mostly positive as we are able to control costs while substantially enhancing our application. We do not consider the Apriorit team as an outside vendor but an extension of our development team. The only negative is the flight time from the US for our bi-annual onsite visits.

– Has the political turmoil of the past two years had any impact on your operations?

We have not experienced any negative impact due to the turmoil in eastern Ukraine. The US-based teams feel very safe when visiting Ukraine and the Ukrainian development team continues to impress us.



How US company Lifeworks found in Ukraine competitive rates – and a lot of fun

Founded six years ago, Lifeworks is a rapidly-growing, New York-based company creating technology-driven accessories. Its App Master Victor Dweck shares his outsourcing experience with Ukrainian company QATestLab.

– Why you felt it would be relevant to outsource the testing of mobile apps?

As we continue to build more and more products, we need to build our team. Rather than hiring internally and training, we decided to look for proven expertise outside the company.

– How did you come to work with QATestLab in Ukraine? Did you try other service providers in the USA or other countries?

We didn't look for service providers in the USA because we were looking for competitive rates overseas. We searched on Upwork for a partner and interviewed about 30 different candidates. QATestLab had a similar outline of work as the others, but its manager, Yuliya, was just above and beyond an amazing person. She was nice, understanding, incredibly smart, and always there to help.

– What have been the positive and the negative sides while working with Ukraine? What did you learn from this experience? –

QATestLab leads our QA and bug testing efforts, as well as helps with project management and even customer service at times.

Working with Ukraine has been incredible. Besides being smart, kind, and generous, Ukrainians know how to have a lot of fun, which is important to us! Fun people with a great work ethic, in my opinion, are the best people to work with. In our case, it's the only people we like to work with. The only negative about working with Ukraine is that we don't get to see each other in person!



Rachel Nienaber of Currency Cloud: "Good communication has helped us keep processes and styles consistent with a remote team"

Currency Cloud is a UK-based international payments company focusing on the B2B market. Its solutions make it quicker and easier to instruct payments worldwide. VP Engineering Rachel Nienaber explains the reasons for outsourcing a part of their developments in Ukraine, and describes the positive and negative sides of this outsourcing venture.

– Why did you need/choose to outsource a part of your developments?

Our headquarters are in London which makes it challenging to build up a large development team both in terms of space and costs.

– How did you choose your outsourcing destination(s)?

At the time we were looking to outsource one or two development teams. It was very important for us that the time zones were very close together because we knew that we would need to spend time chatting with them every day. It was also important that the location be easy enough to reach quickly so that we could arrange quarterly face-to-face visits between us. Any location with a long flight time or multiple stops would have made this requirement impractical. Lastly we also wanted to find a location where the working culture was similar to ours.

– While working with Ukraine, what have been the positive and the negative sides?

I'll start with the negative side first since it's quite short. N-iX, the Lviv-based company we work with, has been really good at finding us great developers but it does feel that sometimes we miss out on great candidates because their English skills may not be good enough.

There have been a lot of positives. We find that their work attitude is very similar to ours and we get along well. They are easy to work with and we also appreciate that they challenge the work from both a process and technical point of view. It really shows that they are interested in the long term success of the product and not just in churning out work.

The political turmoil thankfully did not impact our operations too much. Our teams there are in Lviv which was quite far from the problems going on. Although, the biggest thing that we were worried about was that the people we spend every day with and had come to know very well would be ok.

– Do you usually work remotely with N-iX, or do you manage to organize physical meetings?

We think the outsourcing venture with N-iX has been successful because there is so much communication. And even though we chat with them regularly, it feels that we could even do more. This is also complemented by the face-to-face visits we have every few months. It is enough of a challenge working with a growing team when everyone is in the same location, but trying to keep processes and styles consistent with a remote team does make it more difficult. Good and regular communication has really helped with this.



How a video data storage solution provider found "amazingly skilled experts" in Ukraine

Facing a scarcity of expert resources in its specific field, a small western solution provider made attempts to work with freelancers before hiring Apriorit, an IT research and development firm based in Dnipropetrovsk. While describing this collaboration in enthusiastic terms, the company prefers not to be named for competitive reasons.

– Would you tell us a bit about your technology and why you felt it would be relevant to outsource R&D?

We develop products at the highest possible level of innovation because our customers demand the highest standards of performance and flexibility. It is essential that we come up with very special functionalities requested in the small niche of media and entertainment related storage products. Not many common "IT-based" technologies work well in the specific context of video editing and production, which is why we need to use many custom developments. When it comes to the performance requirements of the latest video formats, it is nearly impossible to find developers who are good at this high a level of writing code.

Apriorit has a team of amazingly skilled experts – which is a very, very rare species!

It makes sense for us, furthermore, not to hire a full-time developer to be in-house five days a week, because our requirements for those employees are always bound to specific development projects.

– You tried working with freelancers before choosing a Ukrainian IT firm. What went wrong with the freelancers and why did you finally choose Apriorit?

We used ODesk as a platform to acquire freelancers based on their skillset, but sadly the quality of the work and the know-how was nowhere near what we required.

We came across Apriorit by simply stumbling on some articles by Dennis Turpitka, their CEO, on file system level development in Windows. The contact with him and his team was super professional from the first minute, and the quality of the work we are getting from them is nothing short of outstanding. From the moment of project coordination to delivery – it is spot on!

– What have been the positive and the negative sides of working with Ukraine?

From my point of view, there has been no downside to having people based in Ukraine. Generally, it could be problematic in terms of personal, face-to-face meetings – but in the era of video conferencing, even this problem could be finessed if it arose.

A definite positive side is that there are so many skilled developers in Ukraine. Also, it is not entirely about the price of the work; being a small company, we saw that the project budgets were in line with what we could afford for the custom developments. We had spoken with US-based development companies before, but their pricing was not affordable within our tight budgets.

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IT UKRAINE FROM A TO Z

P A R T 4

**IT OUTSOURCING:
CASE STUDIES**



How disruptive fintech and healthtech companies find industry and technology expertise in Ukraine

By Andrew Pavliv, CEO of Ukrainian software development firm N-iX

“The Rise of FinTech – New York’s Opportunity for Tech Leadership,” a report by Accenture and the Partnership Fund for New York City, has recently revealed that global investment in fintech endeavors tripled to nearly \$3 billion in 2013 from approximately \$1 billion in 2008. According to The Economist, in 2014 fintech firms attracted \$12 billion in investment, while Goldman Sachs estimates revenues in the sector to have been worth \$4.7 trillion.

Health technologies also have seen an astounding growth rate, with roughly \$2.8 billion invested in healthcare technologies through the second quarter of 2015, according to a study from Startup Health.

Tech companies in these fields often look for development partners with the required expertise. Many Ukrainian development firms with the necessary competencies thus enter into partnerships with fintech and healthtech companies of all sizes.

CURRENCY CLOUD’S CROSS-BORDER PAYMENT SOLUTION

Our client Currency Cloud, a leading UK-based fintech company delivering cross-border payments as a service, had strict requirements regarding their provider’s industry and technology expertise. Having raised \$35 million in funding, the company is gaining market share in international payments, a space of which 85% is controlled by banks.

Focusing on Europe, the company has been very attractive to startups because it is small, able to add new features quickly and adapt to new platforms – all things that banks are notoriously bad at. Currency Cloud is approaching half a billion dollars of payments a month, and a part of its recent funding will be used to expand to the US market.

N-iX has helped the company build an extension to the current service, “Currency Cloud Direct.” This client-facing responsive web application with RichUI is powered by KnockoutJS. Developed by the engineering team dedicated to Currency Cloud, the application runs with the company’s payment engine, allowing web access to the main Currency Cloud services. Furthermore, Currency Cloud, an API-based service, has involved their dedicated team at N-iX in the development of their core technology. As a result, a new, enhanced version of CC RESTful API successfully launched in May 2015 at Finovate Spring. The team continues to work on improving its existing services and helping the company to expand into the US.

CURE FORWARD’S NEW APPROACH TO CANCER TREATMENT

While CurrencyCloud was looking to extend its strong in-house development team with a partner from Eastern Europe, US biotech startup Cure Forward, which was used to working with multiple US vendors, was looking for a single development partner in order to develop its technology more efficiently.

PART 4: IT OUTSOURCING – CASE STUDIES

Based in Boston, Cure Forward aims to change the traditional approach to cancer treatment by connecting cancer patients with clinical trials. With \$15 million secured in a recent round of funding, the company is currently building a web service that will connect patients willing to try experimental treatments for their cancer with researchers who may be looking for subjects with their genetic pathology.

Cure Forward thus “puts personalized medicine within reach” by enabling cancer patients to make their own genomic data available to trial recruiters across the country. As a result, trials can be filled and new treatments can reach the market more quickly.

Cure Forward had previously worked with multiple US vendors to develop its core technology, but their goal was to find a single partner who could deliver expertise in the bioinformatics and cancer genomics fields and cover both front-end and back-end development for a variety of web-services. N-iX matched the criteria. We set up a fairly large, Lviv-based engineering team covering all the required development fields and tailored to meet the goals of the startup. Cure Forward opened its web service to beta testers in September 2015, with plans for a broad launch in late 2015. The eBay-style forum, where patients can host the genomic data on their cancer and researchers leading clinical trials can browse the postings looking for a match, is being fully developed by a team at N-iX in cooperation with and under the guidance of the company’s CTO in the US.

Having worked with software vendors and tech companies for over a decade now, we know it takes a strategic decision to engage a partner to develop the technology that lies at the core of your business. Service companies usually undergo a very thorough evaluation and have to meet certain strict requirements. However, when the cooperation works out, there is a two-dimensional bright side to it. Service companies get the chance to be a part of the technological disruptions of the new millennium and the partnership is a great place to be in business.

Mr Pavliv can be reached at contact@n-ix.com





Mature R&D outsourcing model vs. Freelance and remote employee scheme

BACKGROUND

A US-based, mid-sized provider of enterprise management solutions was using a freelance scheme for some of their projects in order to lower development costs and create an easily scalable task force. Several freelancers were working in different cities of Eastern Europe with the company's development director coordinating their activities.

PROBLEM

At a certain point, due to the broadening scope of the company's projects and the standardization of its development policies, the freelance scheme became inefficient:

- Processes were poorly controlled and unpredictable.
- These processes constantly required significant resources from the management.
- The freelance scheme contradicted a number of quality assurance, coding, and financial management policies.

The company management decided to outsource development tasks to a software R&D provider.

SOLUTION

After shortlisting potential partners, the company chose Apriorit as a result of positive references from its clients.

While an outstaffing approach was initially considered, Apriorit suggested an alternative model called "managed services," which had proven significantly more efficient. In Apriorit's offer, all of the problems resulting from freelancing would be resolved with a team of full-time developers and quality assurance specialists. A part-time project manager would coordinate efforts and take responsibility for deliverables.

Implied in this model were the following benefits:

- A team with a single point of contact – in which the project manager is responsible for deliverables – would require minimum management resources from the client.
- Situating all team members in a single place would minimize communication issues.
- The client would not deal with pay-roll and other organizational tasks: under the managed services approach, the client is billed monthly with a unique invoice at a pre-defined fixed rate.
- Although compliance with the Apriorit standards is guaranteed, the client may still be required to extend or modify the standards for its projects.
- Development risks are lower as the team's responsibility does not only consist of completing assigned tasks but of also delivering high-level results in a timely manner.

Having reviewed several bids and discussed all options internally, the company opted for Apriorit and its proposal for managed services. Thus the Apriorit team became an autonomous working unit within the client's processes, beginning to deliver timely results without any need for "micromanagement."

IMPACT

This tailored outsourcing approach helped the client in several ways:

- **All problems related to control, planning, and management were resolved:**
 - Although the scope of the project grew, the client did not need to invest any additional management resources. It even became painlessly possible to start and manage new projects.
 - The financial department found itself with fewer tasks and potential risks as a result of the transparent monthly payment scheme.
 - The broad industry experience of the R&D team allowed the company to significantly accelerate development and meet market expectations when the product was launched, thus improving company revenues.
 - With the responsibility for delivering planned results pinned on Apriorit, an experienced R&D service provider, and covered by Apriorit guarantees, overall development risks were significantly lowered.
- **The burden on management resources was relieved.**
- **The project became more controllable, predictable, and easily scalable.**

The Apriorit team can be reached at info@apriorit.com

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Korean research institute finds rare mobile OS skills in Ukraine

BACKGROUND

The Electronics and Telecommunications Research Institute (ETRI) is Korea's largest government-funded research institute, focusing on developing talent, techniques, and innovative ideas in the field of Information Telecommunications.

Among ETRI's current projects is ViMo (Virtualization for Mobile), which consists of a micro VMM (Virtual Machine Monitor) designed for mobile devices to run multiple operating systems (RTOS + GPOS) concurrently. Given the trend for corporate device and data consumerization, the thought emerged that mobile devices should include some sort of protected environment for business information and programs isolated from personal user data.

One method of creating such an environment was considered to be mobile device virtualization, though no ready-to-use products existed for this purpose.

PROBLEM

While working on the project, the Korean team was faced with a complicated technical task. When taking into consideration the hardware limitations of mobile devices, full mobile virtualization was expected to be problematic because each hosted virtual system would run below optimal performance levels. One solution to these issues would be OS switching.

This task required expert knowledge of low-level OS interactions. Unfortunately, the highly skilled in-house staff at ETRI was occupied by other tasks, leaving the Institute without the resources required to investigate the issue and develop a working solution.

SOLUTION

Prior to this project, ETRI had never outsourced research or development. This is due both to the highly specific area of expertise generally required and the competitive cost of labor in Korea. The outsourcing firms initially considered for the job either lacked the necessary technical skills, or were wary of undertaking the job on a fixed-price model due to the high risks associated with exploring new technological territories. A controllable process and guarantee of delivery also featured on ETRI's list of requirements.

ETRI contacted Apriorit, who had experience with both virtualization solution development and research ventures. Following a meeting in ETRI's Korean headquarters, agreements were made to set about the client's project.

The central challenge was that it had no analogue. So, once the first specifications were approved, Apriorit needed to perform feasibility research and produce the solution concepts from scratch.

"This approach was absolutely unexplored and required deep investigation. No analogues, no research documents – we needed an exclusive solution," underlined Dr. Ahn, Chang-Won of ETRI.

INDUSTRY ANNOUNCEMENT



Discovering the right offshoring formula – after three failed attempts

BACKGROUND

The client, a medium-sized US company with offices in Europe and Asia and a leading global ranking in regulatory information management for the pharmaceutical industry, lacked the resources to simultaneously support its existing products and speed up the development of new ones. Three attempts to implement an offshore model had failed, even though external procurement consultants had been involved in the process of selecting a service provider.

A fourth service provider, NIX Solutions, was engaged after being introduced by an independent IT consultant who enjoyed the respect of both sides. NIX had successfully delivered a small project for this consultant, who subsequently spoke to the CTO about this Ukrainian company in favorable terms.

PROJECT IMPLEMENTATION

The collaboration started with a small team of three developers and two QA from NIX assigned (along with in-house personnel) to the maintenance of a large-scale submission management system. The NIX team was to quickly pick up a project with a significant existing code base, distributed enterprise architecture, and working in a complex vertical domain. In order to take over the project and establish a foothold in the new area of focus, NIX Solutions invested in assembling the proper expertise. They engaged their best technical, analytical and managerial staff – experienced people with a strong grasp of the essentials. Since the customer had never operated with decentralized teams, the documentation was very fragmentary.

“Our strike team was shoveling all available sources of information – customer’s key staff, user documentation, old and new requirements – and putting together a knowledge base that we used to bring the rest of the team up to speed,” recalls Alexey Nikolayev, VP Corporate Clients at NIX Solutions.

In parallel with meeting the first assignments, the provider worked closely with the customer to polish the interaction process. All process solutions were documented and shared with the customer for discussion and implementation. The provider and the customer determined together which standard procedures of the customer’s SDLC worked well with the offshore model; what was missing; which changes were required; and what should be deprecated.

Following their unsuccessful offshore experience with other vendors, the customer’s team identified most of the internal issues and was open to addressing them. For example, from the very beginning they were ready to share specific business knowledge and technological expertise. Thus they agreed to send senior technical specialists to the provider’s office for knowledge sharing. These regular exchanges helped teamwork considerably.

“The solid background we accumulated in the relevant domain, our level of technical expertise, proper management of client expectations, and our capacity to fulfill commitments created the conditions for success,” Nikolayev concluded.

IMPACT

Beyond the standard services that were part of the initial contract – software engineering and QA – the vendor provided business analysis, project management and first-line customer support. The collaboration, which started with a small team of three developers on the vendor’s side, grew over the years to involve a hundred engineers, testers, business analysts and scrum masters. This contributed to the customer’s growth, which resulted in a series of successful acquisitions.



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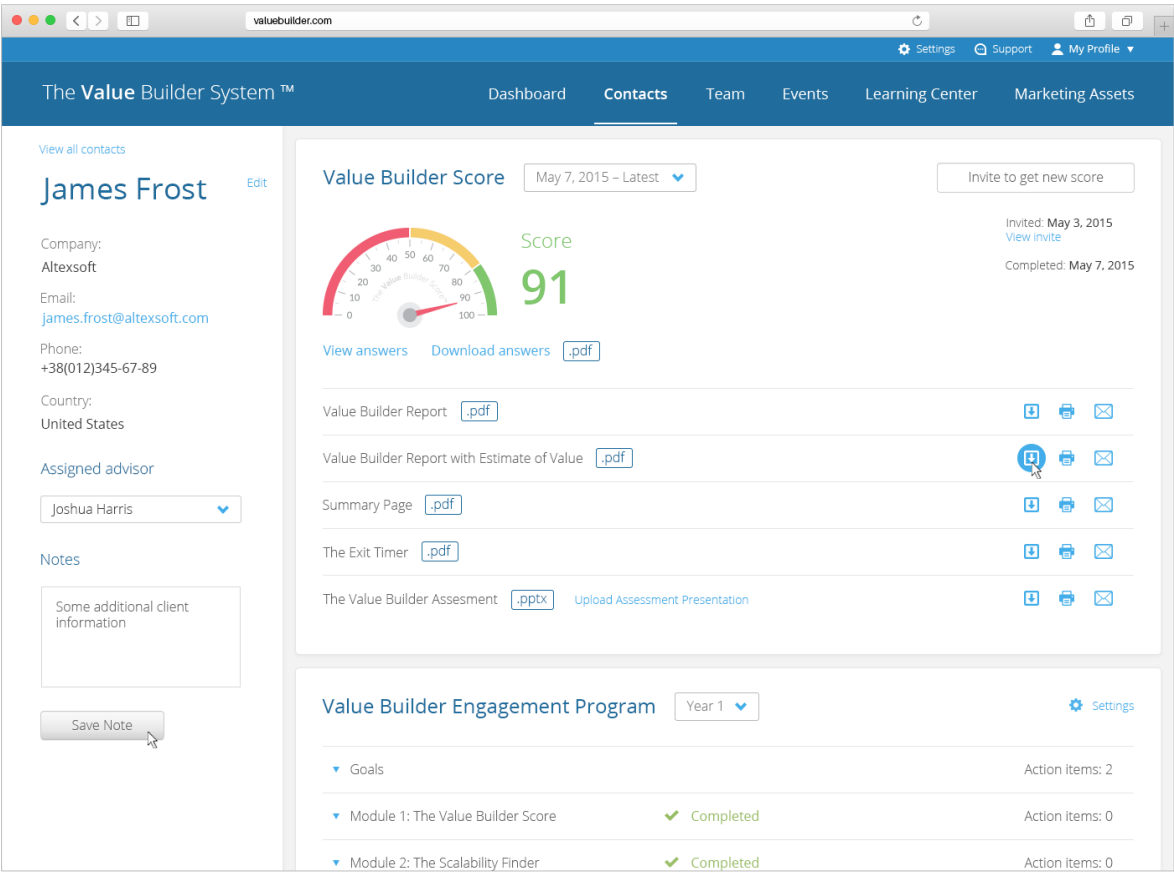
Enhancing a client’s business model through user interface implementation

BACKGROUND

John Warrillow, one of America’s most influential business-to-business marketers, has designed a unique methodology called the Value Builder System for increasing a company’s value. It targets business owners who want to analyze and improve their businesses before selling to an outside investor. The US marketer asked AltexSoft to develop online and software tools further to switch to an essentially online type of business while making the methodology even more efficient.

STEP 1: ENHANCING THE EXISTING WEB APPLICATION

Initially, the client’s business worked the following way. A business owner filled out a web questionnaire that was subsequently analyzed by an advisor. The system calculated the company’s value, i.e. its “sellability.” The advisor contacted and consulted with the client on various improvements to consider in order to increase the sellability rating. At this point, the software product consisted only of a list of online surveys available to the advisors.



PART 4: IT OUTSOURCING – CASE STUDIES

The first task for AltexSoft was to rebuild the existing solution into a convenient cloud-based web application with a number of functions. This task involved four steps: provide dynamic web forms to fill out; analyze the completed surveys; calculate and display companies’ final sellability scores; and generate reports and recommendations based on the analyzed data.

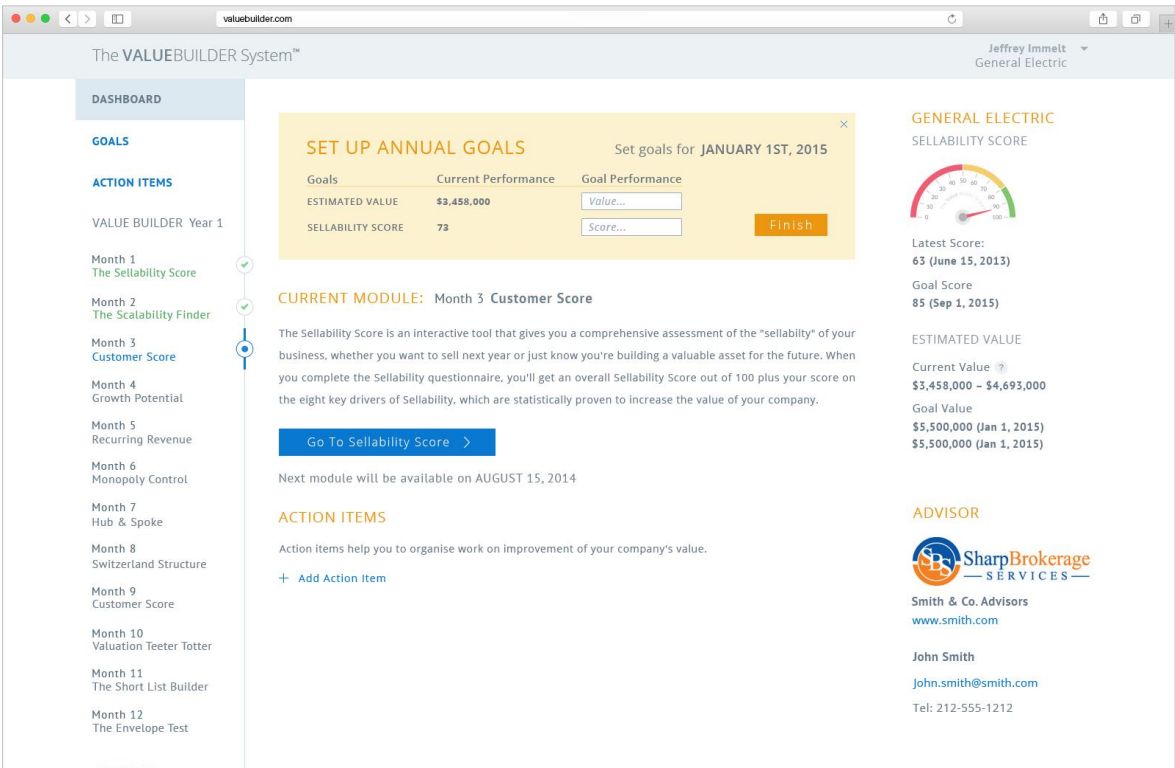
Thus, this first step in the client’s business transformation was all about improving his existing application. AltexSoft delivered a lightweight and user-friendly solution, the Sellability Score, which was able to perform the basic analysis and present accurate results.

STEP 2: MOVING MORE BUSINESS ONLINE

The second stage involved taking another part of the client’s business online. After the first stage was completed, the client realized the need for an online tool that both advisors and business owners could use.

In the existing system, after the completion of the free (online) survey and the paid (offline) assessment stage, the advisor would guide the business owner through a step-by-step enhancement process with offline methodological materials and follow-ups. AltexSoft has integrated all of this process into an online tool christened Value Builder Engagement. The online program consists of 12 modules, each one of which is a monthly set of improvement activities for business owners.

AltexSoft’s usability specialists became deeply involved in developing the business logic behind this tool. The implementation of features did not start until wireframes and prototypes had been polished. Moreover, the team dug well into the interconnections within the tool – even into formulas underlying the calculations in the system – to make sure that no flaws or inaccuracies would detract from the user experience.

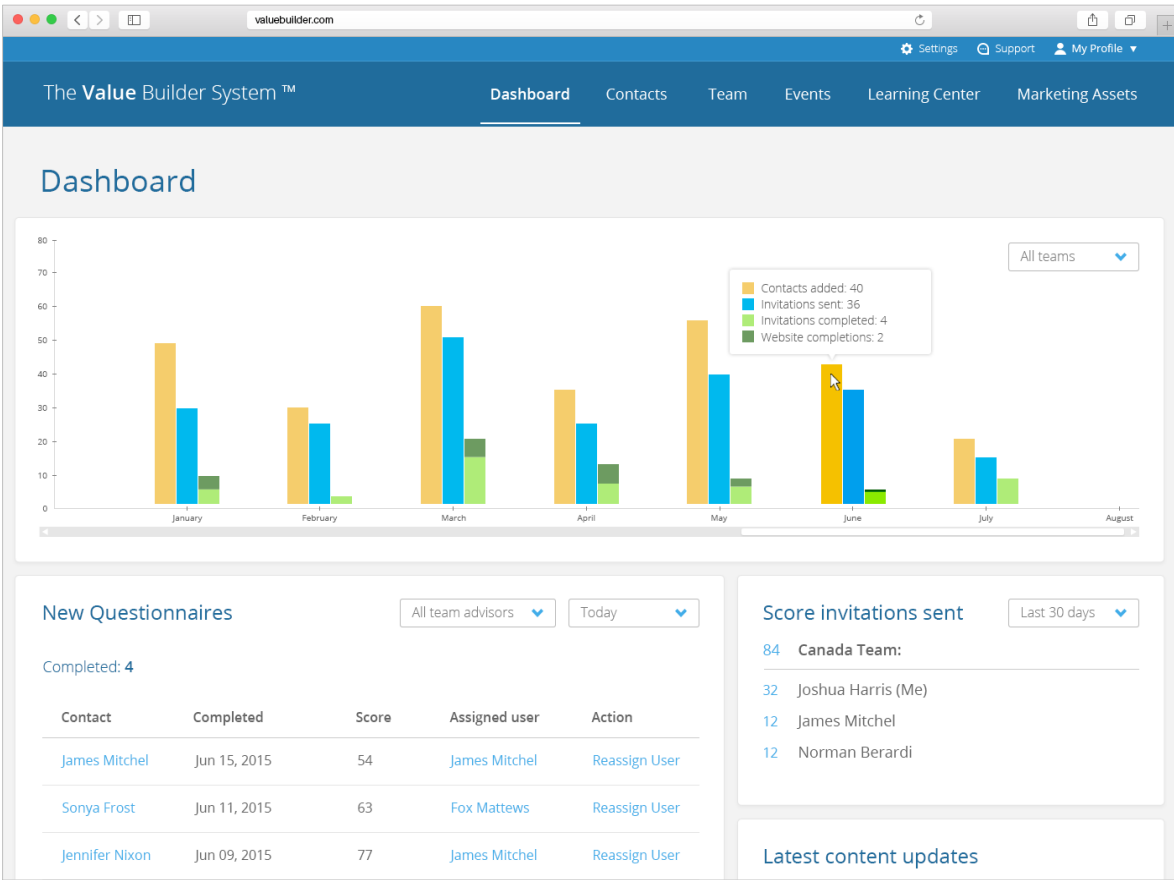


STEP 3: SUGGESTING A NEW SELLING PROPOSITION
AND BUILDING THE SOFTWARE PRODUCT

While working on step 2, it became clear that the market for such software could be much wider. Specifically, the company could engage any professional seeking to improve the performance of a business, not simply an owner planning to sell one. In the meantime, AltexSoft’s technical specialists suggested merging the Sellability Score and Value Builder Engagement tools into a fully-featured content management system (CMS) for business advisors. The client agreed with this recommendation and decided to extend the offer.

The product developed within step 3 was called the Value Builder System. AltexSoft chose Symfony, a PHP web development framework, to build a well-structured, maintainable and scalable application. Using Symfony also allowed the developers to integrate third-party solutions such as Salesforce, Hubspot and Zuora.

The Value Builder System is a CMS created by taking the Sellability Score and integrating the Value Builder Engagement tool into it. Its additional functionalities include staff management for business advisors; customer relationship management; a learning center; marketing automation; and a marketing depository. The Value Builder System effectively allows any user to manage staff flexibly, see a contact’s status, monitor changes, import contacts, launch large-scale emailings, see learning center updates, and more.



PART 4: IT OUTSOURCING – CASE STUDIES

While analyzing the behavior of the application's existing users, AltexSoft analysts identified three user types: solo practitioners, small companies (3-5 persons) and large advisory companies. Based on this knowledge, it was entirely logical to develop a distinct user interface for each user type, with the corresponding hierarchy of roles assuring convenient flexibility for users.

At the end of the third stage, an easy-to-use platform for business owners was delivered. The tool calculates, monitors, evaluates, provides helpful business materials and much more.

BUSINESS RESULTS ACHIEVED

Through this cooperation, the client has transformed his enterprise from a primarily offline business into a fully online one, with additional scalability of training separate advisors (with such a model being very limited in offline model). Previously the client would sell the web survey analyzer to business advisors for a flat price. This meant that several advisors could, for a small commission, use the same solution.



With the Value Builder System as a comprehensive CMS with useful tools, each advisor can buy the customized product most suitable for his needs. It is more advantageous with the new system to buy a license for each team member, so any advisor can do all the contact management work inside the system.

In addition, with the 12-month subscription to the powerful coaching tool Value Builder Engagement, each new account transforms into a separate and ongoing revenue stream for the client. Moreover, the sophistication of the system allows the client, for an additional fee, to certify the advisors who use the Value Builder Engagement.

The AltexSoft team has been conducting deep and detailed business analysis, usability analysis and software engineering throughout the project. Constant improvement of the Value Builder System and the business logic behind it has led to the launch of a product with considerable added value to both the client and his customers.

The AltexSoft team can be reached at sales@altexsoft.com

Project stages for Value Builder System

	Initial application	Development of the new solution			
		Step 1	Step 2	Step 3	
	Initial Sellability Score system	 Sellability Score solution (SS) (new version)	Value Builder Engagement (VBE) 	Value Builder System (VBS)	Value Builder Engagement
Functionality	<ul style="list-style-type: none">A list of basic web questionnairesCalculation of company value.	<ul style="list-style-type: none">Dynamic web formsAnalysis of completed surveys;Calculation of sellability scoresGeneration of reportsGeneration of improvement recommendations	<ul style="list-style-type: none">A 12-month program with modules for the different aspects of a businessSets monthly and yearly goals and tracks achievementsTests data visualizationAction buttons for each module to mark and trace progress.	<ul style="list-style-type: none">Staff management for business advisorsCustomer relationship managementLearning centerMarketing automationMarketing depository	
End product		<ul style="list-style-type: none">Improved version of the initial application	<ul style="list-style-type: none">A new, powerful online tool for business improvement used by advisors.	<ul style="list-style-type: none">A CMS based on the SS tool and integrating VBE with added functions.	<ul style="list-style-type: none">Easily manageable tool integrated in the VBS.
Revenue source	<ul style="list-style-type: none">1 license per advisory companyFlat fee for the reports generated.		<ul style="list-style-type: none">Activation of each userCertification of advisors	<ul style="list-style-type: none">Activation of many users within a company	



Streamlining big data operations and reducing costs for a global audit company

PROBLEM

One of the Big Four global providers of audit, legal and other professional services needed to refine its big data analytics and operations platform while ensuring secure mobile access to its corporate data and systems – including analysis, planning and reporting for both internal and “in the field” users. The company also required professional support of the delivered solutions.

The company approached Infopulse, a Ukraine-based IT service provider operating internationally, which had been a partner since 2008.

SOLUTION

The solution suggested by Infopulse consisted of three main components: application management – implementation of a redesigned reporting system based on SAP HANA – combined with a mobility solution to access the data remotely and leveraged by a multilayer support service.

- The existing data reporting systems based on legacy technologies were rebuilt into a data consolidation and reporting platform based on SAP HANA. Real-time automated reporting unified and facilitated data aggregation from numerous data sources. A strong and effective level of data protection was added through SQL and VBA functions, minimizing the possibility of data corruption and improving the quality of the reported data.
- A portfolio of cross-platform mobility solutions was developed to allow secure access to corporate data and systems on the go – no matter where you are and what mobile device you are using.
- To ensure quick and quality support of the corporate system, Infopulse implemented a full-scale support service consisting of first, second and third levels: from regular frontend support and counseling to full back-end support and maintenance.

The architecture of the big data solution was based on SAP HANA, SAP BODS, and Crystal Reports. For the mobility solutions, Infopulse used iOS/Android kits, Objective-C, Java, .NET, and Xamarin. ABAP, Oracle, MySQL, a selection of SAP products (FI, XI/PI, CO, BASIS, Solution manager) and others were used to implement the SAP Support Service.

BUSINESS VALUE

The company’s expense reporting capabilities were optimized by an easy-to-use, fast-performing, ubiquitous and scalable reporting instrument. The cost of the SAP support was reduced, while Infopulse’s competences helped the client stay innovative in the field of mobile.

The mobile applications became everyday tools for all company employees, facilitating top managers’ daily operations and regular personnel efficiency. The delivered solutions and services contributed to making the company more agile by interconnection and constant availability across and within branches.

Please check this page <http://www.infopulse.com/contact-us> to contact the Infopulse team in your country.



Helping brand lovers “Share a Coke” from Ukraine to Kazakhstan

BACKGROUND

Miritec, a Kyiv-based digital production company, is engaged in the technical development of promotional campaigns and activities. With its six years of experience, the company has developed an expertise in ready-to-use digital solutions. Among them has been a video tag platform for Coca-Cola’s “Share a Coke” campaign.

FIRST PROJECT IN KAZAKHSTAN

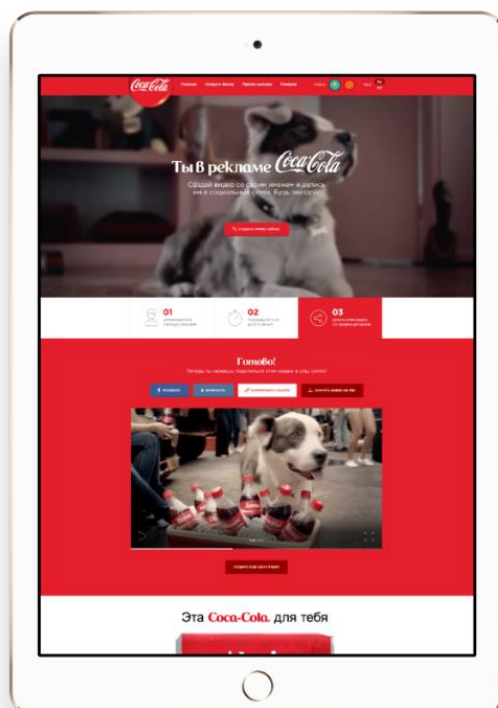
At some point, an updated concept of the “Share a Coke” promo was introduced in Kazakhstan, and indicated an opportunity to place a name into a brand’s movie clip and thereupon generate a personalized video. Miritec faced the challenge of putting this creative idea into action through the prism of digital production.

Video generation was set to become a part of a much bigger digital marketing campaign integrated with social networks. The campaign allowed for the generation and ordering of personalized cans with a range of other tools made available to Coca-Cola aficionados on a single platform.

In order to proceed with the development, a detailed preliminary study was needed of the clip specifics at the stage of user data rendering. The project required:

- the search and enabling of video elements to display the user’s name realistically;
- the development of user-friendly tools displayed on the public user interface;
- working on automatic video processing in order to avoid distortion of surfaces, lightening and shadow effects;
- the realization of the optimal generation speed in consideration of the high load;
- the real-time moderation of generated videos.

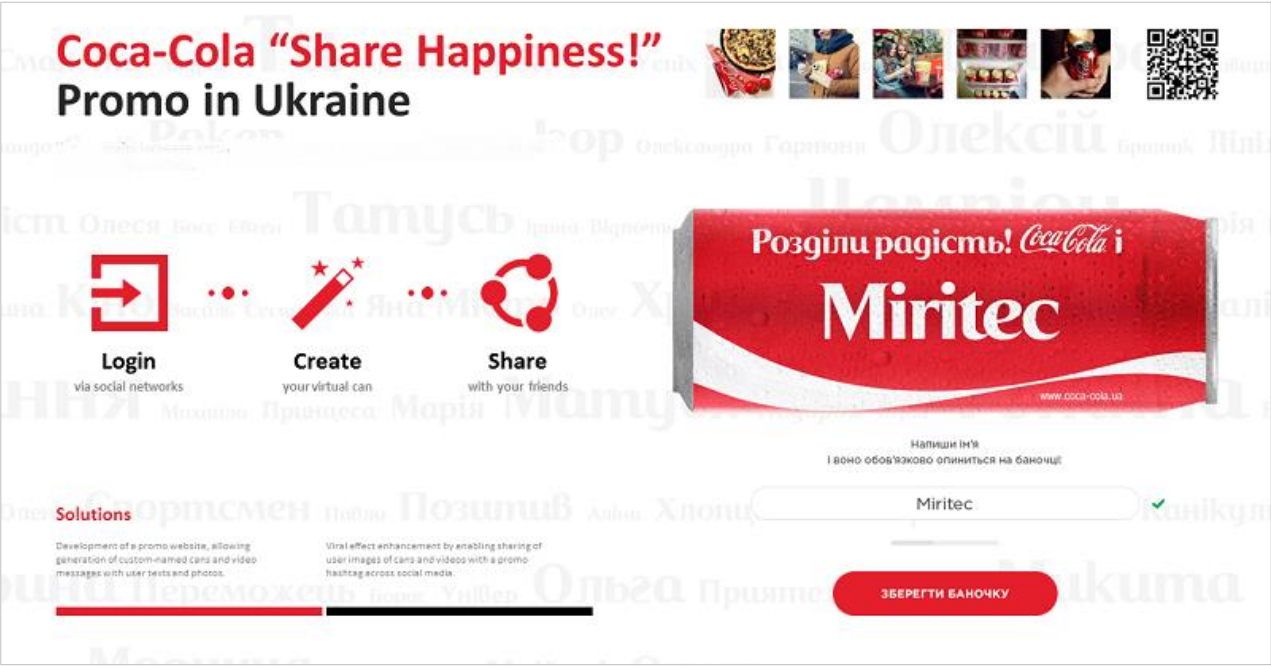
Miritec thus developed a video tag platform that allowed participants to create, download and share personalized videos in a few clicks. Their names popped up on a few Coca-Cola bottles during the entire movie clip, which they received by email and were therefore able to share across social media.



SECOND PROJECT IN UKRAINE

Beyond this, the project team continued to improve and enlarge the capabilities of the platform, which was then launched a few months later in Ukraine, as a part of the “Share Happiness” promo.

Ukrainian Coca-Cola fans now had the opportunity to have their name, several lines of text and even a photo placed in a clip; more precisely speaking, one could fill in a tailored online form with the optional text, upload a photo and click on “Generate video” button.



IMPACT

The Miritec development team completed both projects successfully, in Kazakhstan and Ukraine, providing a technological solution for a new “Share a Coke” promo concept in less than one month.

Notable additional benefits included the following:

- Extra value was added to the brand’s movie clip, which became the core of a video generation mechanism.
- The platform could be scaled according to its localization, high load and digital marketing tools requirements.
- The platform may be adapted easily and quickly for other promo ideas.

The Miritec team can be reached at yuri.goncharov@miritec.com

apriorit Outsourcing pure research

BACKGROUND

Some clients, relying on in-door development teams, still need expert knowledge for gathering quick and reliable research results prior to implementation.

The client needed expert opinion about a rather complex feasibility question: Is it possible to create network bridges for Windows 8 programmatically?

The client's product relied heavily on programmatically-organized bridging between network adapters under Windows OS.

Under previous versions of Windows, this type of bridging had not been a problem since documented APIs were available, and network bridges could be created by means of administrator scripts.

However, since the release of Windows 8 this functionality is no longer supported, and the corresponding tools have been removed from the scripts. The only way to create a network bridge is manual: through Network adapter settings in the Control Panel.

PROBLEM

With in-door specialists under the belief that there were no available interfaces to create network bridges in Windows 8, the product team were becoming desperate – if true, this would necessitate completely redesigning the product's architecture.

The Apriorit research department had a different opinion and suggested that, to support Windows 8, the client needed to research internal APIs.

SOLUTION

The client hired Apriorit experts for the research project, owing to their existing references in research process management and their expert knowledge.

Given the specifics of research projects and its reliance on the skills of its expert team, Apriorit believes that a research project means much more than a brief project description with a budget and a deadline. The Apriorit research approach included three integral components: a free research estimation pack; predefined research stages; and reasonable deliverables including both a research report and a prototype.

The free research estimation pack included:

- Basic task dropdown with research approaches specified.
- An estimate of the time and effort required to approach each task, based on Apriorit's broad research project experience.
- An cost estimate for the development of a prototype.

PART 4: IT OUTSOURCING – CASE STUDIES

A Research and Reverse Engineering Group was formed, which then formulated a three-stage research plan:

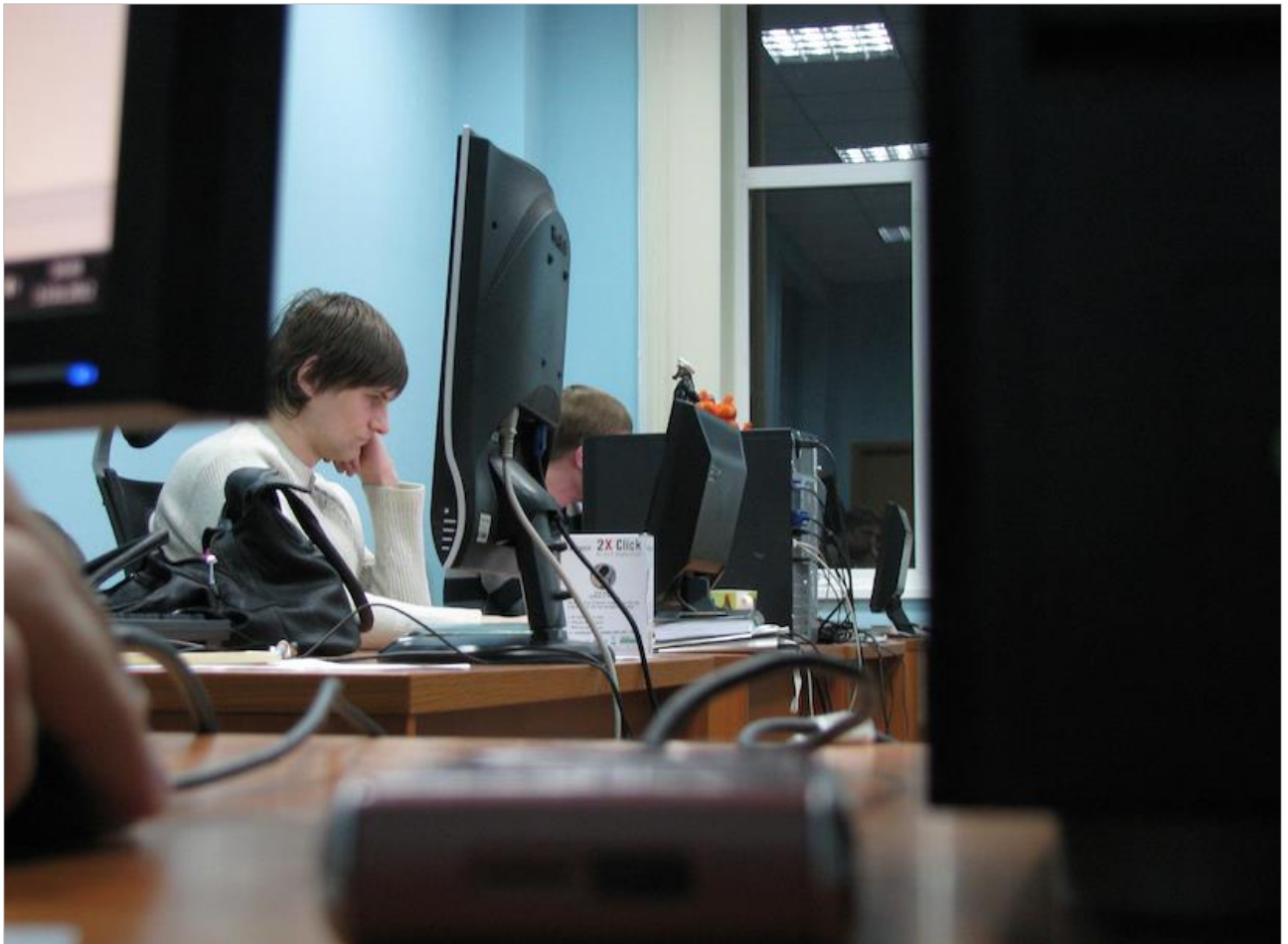
1. Identify the system DLL where the network bridge creation logic was located;
1. Reverse this DLL to get internal APIs names and descriptions; retrieve the interaction scheme;
1. Specify the corresponding interfaces and implement them in a prototype.

As a result, the Apriorit research report included a suggested interface and action sequence to create a network bridge programmatically on Windows 8. Apriorit specialists also implemented a demo application (prototype) with the corresponding interfaces and logic.

IMPACT

The completion of this three-stage task took only 12 man-days. Apriorit provided detailed research reports with a prototype in order to start in-door implementation. The technology was successfully integrated into the client's product and provided painless Windows 8 support –without any architectural change.

The Apriorit team can be reached at info@apriorit.com



The Apriorit team at work



A tricky but successful R&D project with a US virtualization security startup

BACKGROUND

With significant experience in the IT industry and very strong technical expertise, this successful New York entrepreneur had a unique technology idea in security for virtual environments. He organized a stealth-mode startup and acquired a first round of funding. He also achieved investor commitment for further stage-by-stage funding as the technology developed.

It was time to find a development team to transform this idea into proof-of-concept and then to the prototype. The patent-pending technology required deep knowledge of low-level development, broad experience in driver and kernel-level programming. Only certain experts have such advanced skills and knowledge, and it would be almost impossible to hire quickly the required number of them for a startup team in the US. This would moreover cost a significant amount of money, much more than the startup could offer.

Being familiar with the world software R&D landscape, the client decided to consider an outsourcing option.

PROVIDER SELECTION

Having worked on driver development and low-level programming projects for years, Ukrainian software engineering company Apriorit had its expertise recognized in these fields. This provider was able to provide research and then development resources, with skills in Linux and driver development and experience in virtualization technologies. The team also owned some ready technologies to support project implementation – for example, the virtual disk technology would allow the client to save about a person-year of development at the prototyping stage.

What's more, the provider had significant experience in working with startups, including bootstrapped ones. Such partnerships typically begin with a pilot project, which is to be paid only after acceptance of deliverables and only in the case of full client satisfaction. In several cases, Apriorit thus developed demo prototypes to be presented to the investors – based on which the startup raised a round of funding.

The provider's processes, too, were adapted to startup needs – which often include the quick delivery of a minimal valuable product (MVP) in order to test the idea on the market. This MVP may not be the best in terms of performance or interface, but it should represent the key features, concept, or differentiators of the future product. After this validation, the provider's teams began developing the fully-functional solution.

Unlike some providers of R&D services, Apriorit did not request any options or company shares, since neither its business model nor its team motivation model involve such a practice.

PROJECT IMPLEMENTATION

After contract signature, the project started with a kick-off meeting at the provider's office. The client described his idea to the team and discussed his vision of the future product. In order to deliver the MVP as quickly as possible, the provider's team started research right after the meeting, with details cleared out and requirements formalized within the development process. An Apriorit part-time technical writer was included in the project team to assist with specifications and technology presentations.

The first stage of the project involved one researcher from the Apriorit team and lasted for three months. During this stage, a number of feasibility research tasks were completed, with the client, the provider's expert team, and a project researcher suggesting features and discussing approaches to implement them. The startup-sound process consisted of short iterations with results delivered and discussed at the end of each. As a result of this stage, a proof-of-concept was developed.

It was crucial to have a controllable process at this stage, as research can be frequently unpredictable in terms of both schedule and results. With its experience in research outsourcing, the provider's team avoided becoming trapped in uncertain directions and always had alternatives available in order to find the best development path.

Some investors are reluctant to commit to the idea of outsourcing R&D.¹ In this project, the investors hired several third-party consultants to control different aspects of the work. These consultants required a number of reports and justifications for technical decisions. These intrusions into the R&D process complicated the process and conflicted with the main goal – to provide the minimal value in the shortest possible term. This situation was so uneasy for the provider's team to handle that, at some point, the team had to directly confront the consultants and the startup founder, since the deadlines for providing the agreed deliverables risked being missed.

This situation was so uneasy for the provider's team to handle that, at some point, the team had to directly confront the consultants and the startup founder, since the deadlines for providing the agreed deliverables risked being missed.

After examining the situation, the founder decided to stop working with the consultants and to trust the R&D team's experience. He aimed to get the most important feedback from the market and the investors once some MVP had been provided, rather than just reports and considerations.

The startup could thus present to its investors a proof of concept that included several demo technologies, highlighting the key features of the future product and proving its feasibility. The investors accepted these results and approved further funding for a seven-digit amount.

Once the first stage was successfully completed, three more experts joined the team to start the development of the core prototype. At this stage, the provider additionally supplied part-time specialists to assist with market research, R&D planning and management, and technical documentation. Two months later, the team successfully presented the prototype to the investors, helping the startup raise additional funding.

1. Among the reasons why some investors are reluctant to outsource R&D is the fear of more complex project management with less visibility: seeing the in-house team sitting physically at the startup's office may be reassuring. Investors may also fear fraudulent schemes involving third-party providers, or concerns about company valuation, when the core technological team remains outside the company.

PART 4: IT OUTSOURCING – CASE STUDIES

The next stage started with six additional Apriorit specialists joining the project team within only two weeks. The general task for this stage, which is currently running, is to create a working prototype according to the needs and requirements of the real customer. The client, with the team, presents the upgraded prototype to the investor board each month, successfully moving along the product timeline for more than a half of year.

IMPACT

As of November 2015, the MVP was close to its final stage. The startup was hiring non-technical staff – including marketing specialists and product managers – while the provider was still in charge of all research and development tasks. In a further stage, the demo solution was to be deployed for several major US customers.

This professionally-managed team, as an alternative to the hired in-door team, provided the following benefits:

- A team of highly-skilled professionals was ready to start at short notice while it would be almost impossible to gather such an experienced team in the US around a stealth-mode startup.
- Given Ukraine's outsourcing prices, the client received much lower rates for this expert work. The cost of Ukrainian teams may reach 8 or 10 times less than that of US driver and low-level development specialists.
- The client benefited from a professional research service built on a full-cycle mature process with guaranteed delivery. As in-door teams rarely work on research-only projects, their project processes and risk management procedures may not be adapted to the specifics of research tasks.
- Relying on an outsourcing team, the client succeeded in obtaining not only research, development and testing but also assistance from part-time specialists in product marketing, project management and tech writing. Thus, the startup engaged a complete team to cover all parts of product development.²
- Hiring a service provider, the client used the opportunity to extend the team as quickly as was required by the product development stage.
- Working with the expert company, the client benefited from proprietary technologies in the relevant domains, which were the part of the provider's knowledge base, thus saving significant time and resources.

The Apriorit team can be reached at info@apriorit.com

2. For a startup at an early stage with a technically strong and highly-demanding idea, it can be hard to engage an expert team capable of delivering high-quality results to a schedule. It can also be problematic to get qualified assistance for the non-R&D tasks like tech documentation or project management within a startup budget.



Ukrainian R&D team wins global awards for bioelectrical system against nerve paralysis

In July 2015, the team behind the “Implantable Bioelectrical System for Restoration of Blinking” was awarded with the Politzer Prize and Gold Medal for Basic Science Research in Otology at the 1st World Congress of Otology in Japan. This system had been developed with the participation of the Biowave Labs at Ciklum, an international software engineering and solution provider headquartered in Kyiv (Kiev).

BACKGROUND

With one-sided facial nerve paralysis the blinking activity may be disrupted with the paralyzed eyelid. Blinking reflex protects the eye from debris, bright light and external damage. Under normal circumstances blinking spreads tears over the cornea and protects eyelid from dryness. With facial paralysis the reflex action is not possible making the patient's eye is susceptible to corneal abrasions. This was the problem Andrii Bobrov, as the practicing MD from the Institute of Otolaryngology, has been observing for years in his medical practice with no practical solution so far.

Most surgical treatment methods offer less than 60% restoration of blinking for patients with damaged facial nerves. However, certain studies suggested that electrical stimulation can prevent atrophy of facial muscles and fully restore eyelid closure.



Andrii Bobrov of the Ukrainian Institute of Otolaryngology receiving the Politzer Prize and gold medal

PART 4: IT OUTSOURCING – CASE STUDIES

The word of mouth brought the information about biomedical engineering experience of the Ciklum Biowave Labs team to the Institute of Otolaryngology and Andrii Bobrov offered Ciklum to get involved in the project for software development and data processing tasks. The work was started in January, 2015.

IMPLEMENTATION

The idea of the team was restoration of blinking activity in the damaged part of the face where facial nerves in the paralysed part of the face unable to force blinking anymore. The implantable system had to force blinking in the injured eye by following the activity of the healthy eye lid, and sending the electrical impulse to force immediate muscle contraction in the damaged side of the face and thus forcing eye closure.

The biggest project challenge the team faced with was muscle atrophy. Nerve dysfunction causes atrophy of the paralysed muscles making it impossible to predict muscle behaviour and response to the functional electrical stimulation. Therefore, the team had to find a workaround, namely implanting the system first in the damaged part of the face, observe muscle response and track changes in its behaviour in order to change stimulation parameters accordingly. Afterwards, the system could be adjusted and implanted both in the healthy and damaged parts of the face.

In the end, the system included:

- an implantable device to register the eyelid activity from the healthy eye (electromyograph);
- a digital signal processor (DSP) chip for preprocessing and blinking detection;
- a neuro-myostimulator to force blinking in the eye on the damaged side of face.

TEAM

The initial idea, experimental and clinical approbation were implemented by Andrii Bobrov, MD, and Oleg Borysenko, MD, PhD, from the Institute of Otolaryngology, Department of ear microsurgery and otoneurosurgery (Kyiv).

Circuit design and functional prototype development were made by WEL, a Kyiv-based research and manufacturing company (Kyiv, Ukraine), headed by Sergii Shoferistov.

The Ciklum Biowave Labs team, consisting of Anton Popov, PhD, Yevgenii Karpliuk, PhD, Oleg Bodilovskyi and Oleg Panichev, developed algorithms for data preprocessing and analysis, found the method for blinking detection, and implemented the overall software development.

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IT UKRAINE FROM A TO Z

P A R T 5

**IT OUTSOURCING:
TAXATION
& LEGAL ASPECTS**



Ukrainian taxation regulations in the field of IT services

By Alexey Aristov, Director, Financial Advisory Services, Technology Media & Telecom (TMT) Industry Group, and Alina Guseynova, Manager, Tax / Technology & Telecom at Deloitte Ukraine

TAXATION WHEN PURCHASING IT SERVICES FROM UKRAINIAN ENTITIES OR FREELANCERS

The following applies only to the purchase of IT services from a Ukraine-registered legal entity or individual freelancer – not to cases when the Ukrainian service provider operates via an entity registered in another country, with work subcontracted to a Ukrainian entity or Ukrainian freelancers.

■ IT services purchased directly from a Ukrainian entity

If the client is a non-resident entity, IT services are generally not subject to Ukrainian VAT, since under Ukrainian law the place of supply is not in Ukraine but where client is located. In particular this applies to R&D services, software testing, data processing, consulting on informatization, and related functions.

■ IT services purchased from Ukrainian independent contractors (freelancers)

These services are also not subject to Ukrainian VAT. Ukrainian freelancers are mostly registered under the “unified tax regime” and thus liable for the “unified tax,” with a rate ranging from 2% to 4% of their earnings.

Foreign clients may face tax issues, however, due to the lack of flexibility of payment methods. For example, it is still not possible to use PayPal to send money to a Ukrainian resident. (This restriction is expected to be lifted in 2016.)

TAXATION OF RESIDENT ENTITIES

As companies established in Ukraine, subsidiaries of foreign companies involved in IT software development will be liable to certain Ukrainian taxes.

Generally, salary outlay is the most significant expense for Ukrainian IT companies (up to 60% of a company's total expenditures). Salary taxes comprise a unified social security contribution (USCC) of up to 40% (mostly on top of net salary) and personal income tax (PIT) up to 20%. Pursuant to the high tax rates, the tax base is capped at approx. 23,000 hryvnias (approx. \$1,000 as of November 2015) for the USCC. The lower rate of PIT is applied to salaries below 12,000 hryvnias (approx. \$500 as of November 2015). Salaries above this threshold are taxed at 20% PIT. As a temporary measure, all salaries are also subject to a military assessment of 1.5%, which is applied to the gross amount without the cap.

Many companies want to reduce these costs by hiring freelancers as opposed to full-time staff. In this case, the salary tax burden could be reduced to approx. 4% -5%. However, such a structuration requires careful tax and legal analysis.

Most of the services provided by the subsidiary to its mother company will not be subject to Ukrainian VAT, as the place of their supply is not in Ukraine. Furthermore, software development services within the territory of Ukraine are exempt from VAT. This special incentive is valid through 1 January 2023. Therefore, IT companies enjoy a favorable VAT rate on most services. VAT may only affect such related costs as office rent, etc.

The corporate income tax rate is 18%. Usually these types of businesses operate on a cost-plus model, so the margin that an IT company will earn will be taxed at 18%.

In addition to the above, Ukrainian companies are liable to anti-avoidance regulations, namely currency control and transfer pricing (TP) rules:

- **Currency control:** 75% of foreign currency income must be converted into Ukrainian currency.
- **TP rules:** If a company's transactions fall under TP control, the company must submit a TP report and provide TP documentation upon request from the tax authorities.

If the annual earnings of an IT company (or any other company) do not exceed 20 million hryvnias (approx. \$865,000 as of November 2015), the company can be registered as a unified taxpayer. Unified taxpayers pay the unified tax at the rate of 2% or 4% (depending on the VAT regime) instead of the corporate income tax. TP rules are not applicable to unified taxpayers. Moreover, the salary taxes paid by the employer are significantly lower than the standard rates.

POTENTIAL CHANGES IN TAX REGIMES

Current discussions of tax reform may lead to significant changes in Ukrainian tax legislation. In particular, lowering the annual earnings limit to benefit from the unified tax regime is being considered, with the aim of stimulating the development of small businesses. On the other hand, some lawmakers are considering putting an end to the VAT exemption for IT companies.

Moreover, a draft bill inspired by the Estonian tax legislation might lead to significant changes in the corporate income tax regime in Ukraine. Under this proposed variant, corporate income tax would apply only to distributed profit, such as dividends and 'quasi dividends.' Profit reinvested in the company would be exempt from taxation.



How to increase the protection of your IP rights when dealing with a Ukrainian IT service provider

By Kateryna Timchenko, Managing Partner and lawyer at law firm Laudis (Kyiv)

A software development customer is first of all interested in the protection of their intellectual property rights. This question may arise especially when the outsourcing company is located out of customer's residence and they are not aware of the local legal specifics of IP rights protection there.

So let's consider the most important recommendations for those customers who hired Ukrainian staff to develop software or other IT-related programs.

RECOMMENDATION #1:

MAKE SURE THAT COPYRIGHT OWNERSHIP IS SPECIFIED IN A CONTRACT WITH THE DEVELOPER

Under Ukrainian law, a programmer may claim 50 % of property rights on a created computer program if not otherwise agreed in the engagement contract.

This is provision of Civil Code of Ukraine, Article 430, which states that "Intellectual property rights of an asset created by order belong to the author and customer jointly". This provision of law is disputable since it contradicts a special Ukrainian law on IP rights protection, but nevertheless it is part of the current Ukrainian legislation.

In addition to a clear statement about property rights ownership, the contract should include two other important clauses.

- **Description of the property rights** which are transferred. This is a detailed list of the rights which the exclusive rights owner should obtain. By law, no rights are transferred if there is no description of what exact rights are to be transferred.
- **An authorship fee** – which is formally a distinct payments for services – should be specified. Alternatively, you may use the formulation of "payments for services", but specify that the authorship fee is included in this payment for services. It is important that the payment of the fee is actually made.

Without these clauses, the agreement on the transfer of exclusive IP rights can be voided.

If you don't have a direct contract with the author of the computer program, you have to be sure that the outsourcing company has one and that it provides for the rights to be transferred to you as the customer.

RECOMMENDATION #2:

DO NOT AUTHORIZE THE EXECUTOR TO CREATE ANY INTELLECTUAL PROPERTY ASSET

To avoid risks, it may be more practical to stipulate in the provisions of the contract that no IP assets are to be created during services provision. The executor is to work on separate tasks, create and improve modules, but does not create the idea or develop the core of the computer program. Those separate working tasks are not the IP assets.

However, it is impossible to avoid creation of IP assets in the case of design works, when logos, icons and other visual object are created while developing a software product.

It would also be advisable to conclude separate copyright agreements in case the idea of the computer program, application or other software product arose while working on another of your IT projects. In this case, the idea technically doesn't belong to customer and conditions of its transfer should be negotiated between the parties.

RECOMMENDATION #3:

REGISTER COPYRIGHT ON YOUR IP

In Ukraine, the same as in other European countries, and the USA, the international copyright laws rules apply. Those rules state that IP rights arise once the asset is created and no registration is needed for those rights to exist (Presumption of Authorship).

Nevertheless, when it comes into dispute, the registration document – called the Certificate of Copyright Registration – generally does matter, be it in Ukraine or in other jurisdictions.

According to the Berne Convention of 1986, a title of copyright protection locally issued is valid in all convention countries, which includes 168 countries among which the USA and EU countries. Copyright is treated distinctly from trademark protection, which requires registration in every country separately, whether you apply locally or by means of international application.

This means that you may protect your IP rights in any country participating in this convention, but it would be more effective to protect them in the country of IP usage.

Here is worth mentioning that in Ukraine IP is being registered as submitted, without substantial examination. When it comes to a dispute, evidence of priority is to be presented by the parties. It is the opposite in the US, where the Copyright Office conducts examination of software code in order to detect if it contains protected IP of third parties. This makes US copyright protection more valuable for the foundation of evidence in the case of a copyright dispute.

ALTERNATIVES FOR ENHANCED IP RIGHTS PROTECTION

If you feel that the conditions offered by your IT service provider are not fully satisfactory to protect your interests and intellectual property, you may consider the following options.

▪ Direct contract with team members

You may enter into direct, individual contracts with the developers who work on your project, thus establishing a more direct and personal responsibility towards you. In many cases, these developers are registered as individual entrepreneurs and thus legally independent from the Ukrainian company with which they collaborate. This model of work is legal and widespread in Ukraine due to its flexibility and lower taxation.

From a legal and tax perspective, the procedures and consequences for you and for the developers can be the same as in a standard collaboration with a Ukrainian company. The difference is that you will have to manage several contracts instead of one. Using this model, the Ukrainian company running the team should be remunerated through a separate agreement. Thus the financial model of work with the IT service provider will be fully transparent.

To protect your commercial secrets, NDAs should be signed with the individuals as well as with the service provider.

▪ Create your subsidiary in Ukraine

If, for strategic or other reasons, you need to fully control your R&D processes and assets produced in Ukraine, setting up your own local subsidiary can be an efficient solution. To set up your own company does not necessarily need to be an expensive legal item. You may be the founder as a foreign physical person or as a non-residential legal entity. The director is the executive body of LLC, often as a hired local for the position being completely dependent on your decisions as the founder.

This article aims to cover the most critical IP-related legal issues when doing business with a Ukrainian IT firm, as of November 2015. Taking into account the expected changes in Ukraine's IP rights legislation, and the unique characteristics of each situation, make sure you have competent legal advice on hand.

Mrs Timchenko has over 15 years of experience in law, mostly in corporate law, international taxation, contractual work, and IP rights protection. Previously she worked as Senior Consultant at KPMG in Ukraine. She can be reached at k.timchenko@laudis.ua

Protecting clients' IP rights: A provider's experience

When considering the outsourcing option, many companies are worried about IP protection. This is especially important for startups developing a completely new and patent-pending technology.

Software development service provider Apriorit (www.apriorit.com) has several tools to manage IP rights transparently. The first legal document the parties sign even before the project begins is a Non-Disclosure Agreement. It protects all information provided by the client to the outsourcing provider, whether it is technical, business, or any other sensitive data, from being disclosed and mandates financial penalties.

Once the project is agreed upon, the main service agreement is signed. Special paragraphs explicitly state the transfer of all IP rights related to the developed technology concepts, code, documentation, and any other project-related assets from the service provider to the client company.

To ensure transparent IP right transfer at all levels, Apriorit has signed explicit IP transfer agreements with all its employees.



What you need to know when signing a contract with a Ukrainian IT service provider

By Olena Vardamatska, Head of IP/IT Practice at LLC Wolf Theiss

Software development contracts are usually signed in the form proposed by the customer. However, this form may not be in full compliance with the requirements of Ukrainian law.

UKRAINIAN LAW APPLICATION

Whatever the governing law of the contract, certain aspects of it must comply with Ukrainian law when a Ukrainian party is concerned. (These mandatory provisions are contained in a variety of different legal acts; there is no unified text that lists them exhaustively.)

Regarding software developed in Ukraine, Ukrainian law applies to the emergence of IP rights (owned by the developers) and to the protection of these rights in Ukraine. If the contract includes an IP rights transfer, the relevant provision should be in line with Ukrainian legal requirements.

The subject of the contract, its duration and payment amount should be clearly defined. These three clauses are mandatory for any agreement, according to Ukrainian law. Should any of them not be present in a contract, the contract risks invalidation. Beyond this, the contract's payment clause should clearly define the amount payable for the transfer of IP rights.

A Ukrainian version (translation) of the contract is also required by law; however, the contract will not be invalidated due to the absence of such a translation.

PAYMENT PERIOD LIMITATIONS

Offshore software development is qualified as export from Ukraine. The currency regulation law requires that the Ukrainian provider receive payment for exported IP rights within 90 days from the date of signature of the document confirming the transfer of IP rights. Thus the payment period shall not exceed 90 days from the date when the Ukrainian developers fulfill their assignment and both parties confirm it documentarily.

Until recently, the only document acceptable to banks for such confirmation was the transfer and acceptance act. However, in July 2015 the National Bank of Ukraine issued clarifications allowing any contractually agreed document (such as an invoice) to serve as confirmation.

Nevertheless, for the purpose of IP rights clearance it is recommended that a transfer and acceptance act be concluded to confirm, *inter alia*, the transferring party, the date of transfer and the name of the developed software.

This article covers some common issues related to contracts with IT service providers in Ukraine as of November 2015. Taking into account the frequent changes in legislation, and the unique characteristics of each situation, make sure you have competent legal advice on hand.

Mrs Vardamatska can be reached at olena.vardamatska@wolftheiss.com

How to find your IT outsourcing or BPO partner in Ukraine



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AND TESTING



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SERVICES



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WEB DESIGN



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IT UKRAINE FROM A TO Z

P A R T 6

M U L T I N A T I O N A L

R&D CENTERS

I N U K R A I N E

6.1. INTRODUCTION

Although Ukraine is still in the early stages of realizing its technology potential, it is already home to over 90 research and development centers of leading world companies, including Samsung, Ericsson, Boeing, Oracle, Siemens, Wargaming, ABBYY, UpWork, Adstream, SimCorp and many others.

With around 45% of parent companies headquartered in America, Ukraine's largest partner for joint R&D activities remains the United States, followed by the EU countries, Israel and others.

The most popular location in Ukraine for opening an R&D center is Kyiv, which houses over half of all such bases in the country. Chief among other major cities with high concentrations of R&D centers are Dnipropetrovsk, Lviv, Odessa, Kharkiv and Vinnytsia.

Ukrainian R&D developers work on innovations spanning many industries, with gaming, software, telecommunications and e-commerce the most popular industry types in terms of number of employed IT professionals.

- In the field of gaming, the most prominent R&D centers include those of Wargaming, Plarium, Playtech, Playtika, Gameloft, Crytek and Ubisoft.
- Among Telecom giants with a presence in Ukraine are NetCracker, Aricent, Ericsson, Huawei, Ring Central and others.
- E-commerce leaders include Magento (an eBay company), Sitecore, ISM Company, Rakuten and others.
- Among the major software companies with R&D centers in Ukraine are Oracle, ABBYY, Benish Group, Engage Point and many others.

While most companies do not disclose the details of their activity, many internationally-known products are said to be the work of Ukrainian developers, including such innovative games as “World of Warplanes” and “World of Tanks: Genesis” (Wargaming); Slotomania (Playtika); Warface (Crytek); and products like MaxBill (LogNet), RingCentral (Absoft), CloudMade (CloudMade) and many others.

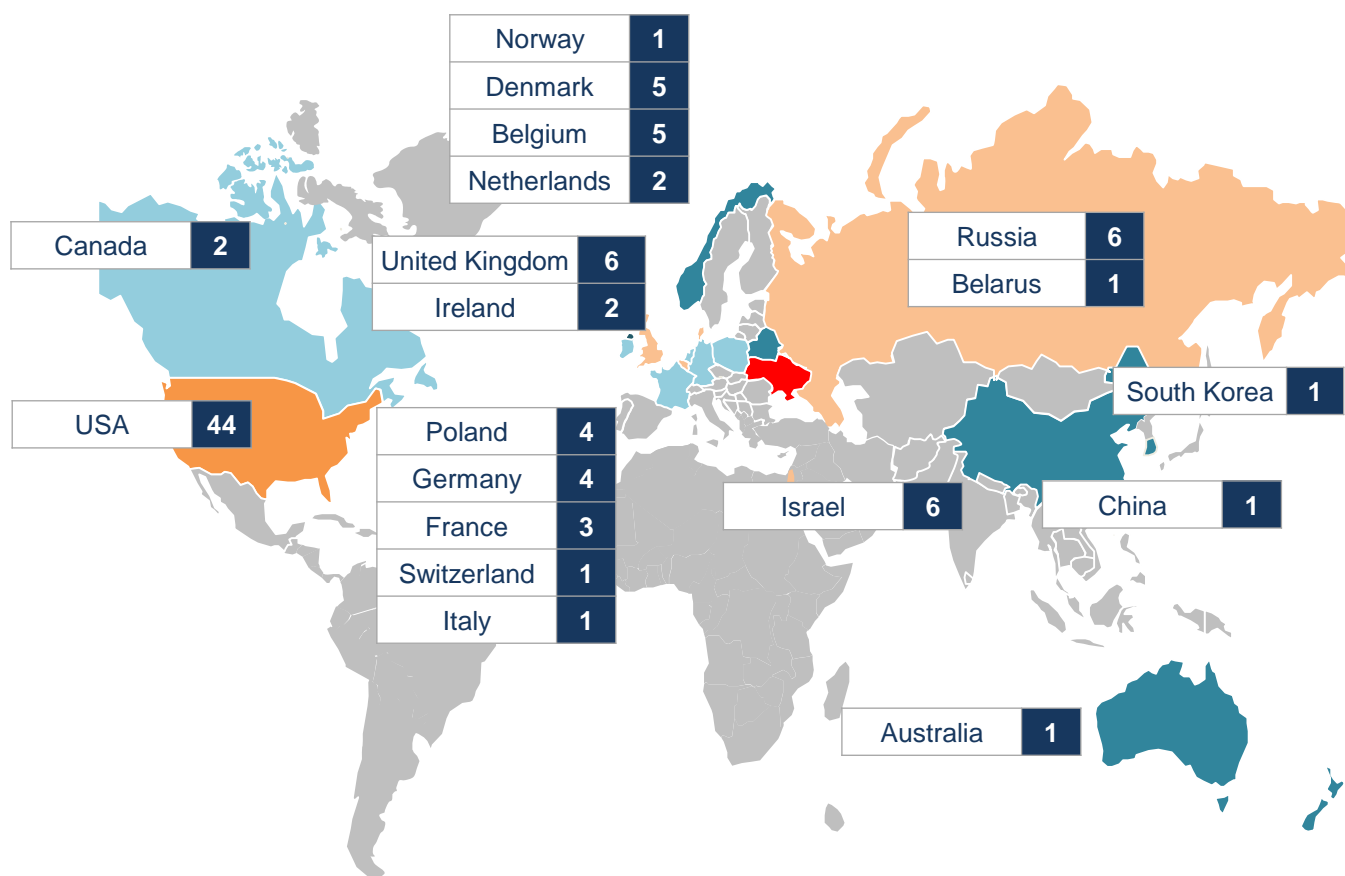
A significant portion of global businesses enter the Ukrainian market indirectly, through M&A or outstaffing service companies.

While some companies' R&D offices grow organically in Ukraine (NetCracker is one example), a significant portion of global businesses enter the Ukrainian market indirectly, through M&A or outstaffing service companies. Recent examples of this approach include four significant acquisitions: Maxymiser TOA Technologies (by Oracle); Slice (by Rakuten); Semantria (by Lexalytics); and Intapp (by TFG). In October 2015, Ericsson announced its acquisition of Ukrainian-Polish Ericpole and the establishment of an R&D office in Lviv.

Though Ukraine has already attracted an impressive number of R&D companies, the introduction of improved conditions for doing business in Ukraine will soon stimulate more incomers. Experts agree that changes in IP rights legislation as well as increased political and economic stability will help the country attract more global technology giants.

6.2. KEY FACTS AND FIGURES

R&D CENTERS BY COUNTRY OF ORIGIN



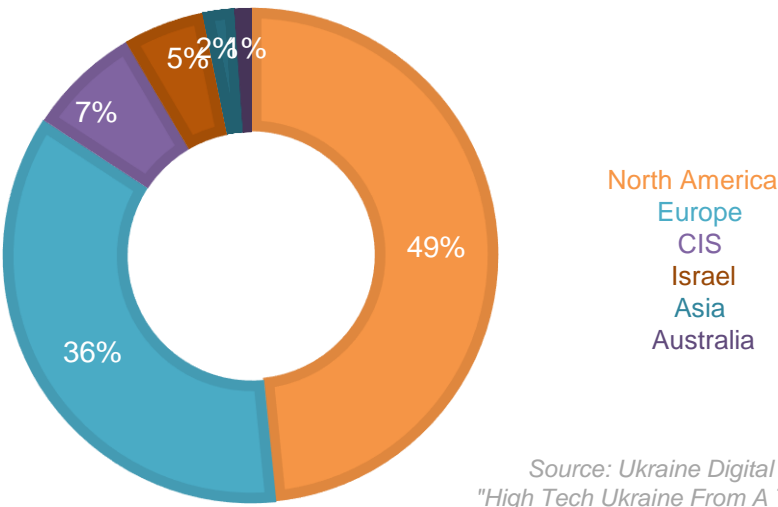
Ukraine hosts more than 90 R&D centers of global technology companies located on four continents. Most of these companies have headquarters in the USA and Western Europe, followed by companies from neighboring Russian-speaking countries as well as Israel. Their primary industry ranges from telecommunication to electronics, to 3D graphing, to energy. Software, financial services and e-commerce are also involved.

Number of top R&D companies mentioned in the report

0 60

Source: Ukraine Digital News, "High Tech Ukraine From A To Z," 2015

R&D CENTERS BY HEADQUARTERS LOCATION



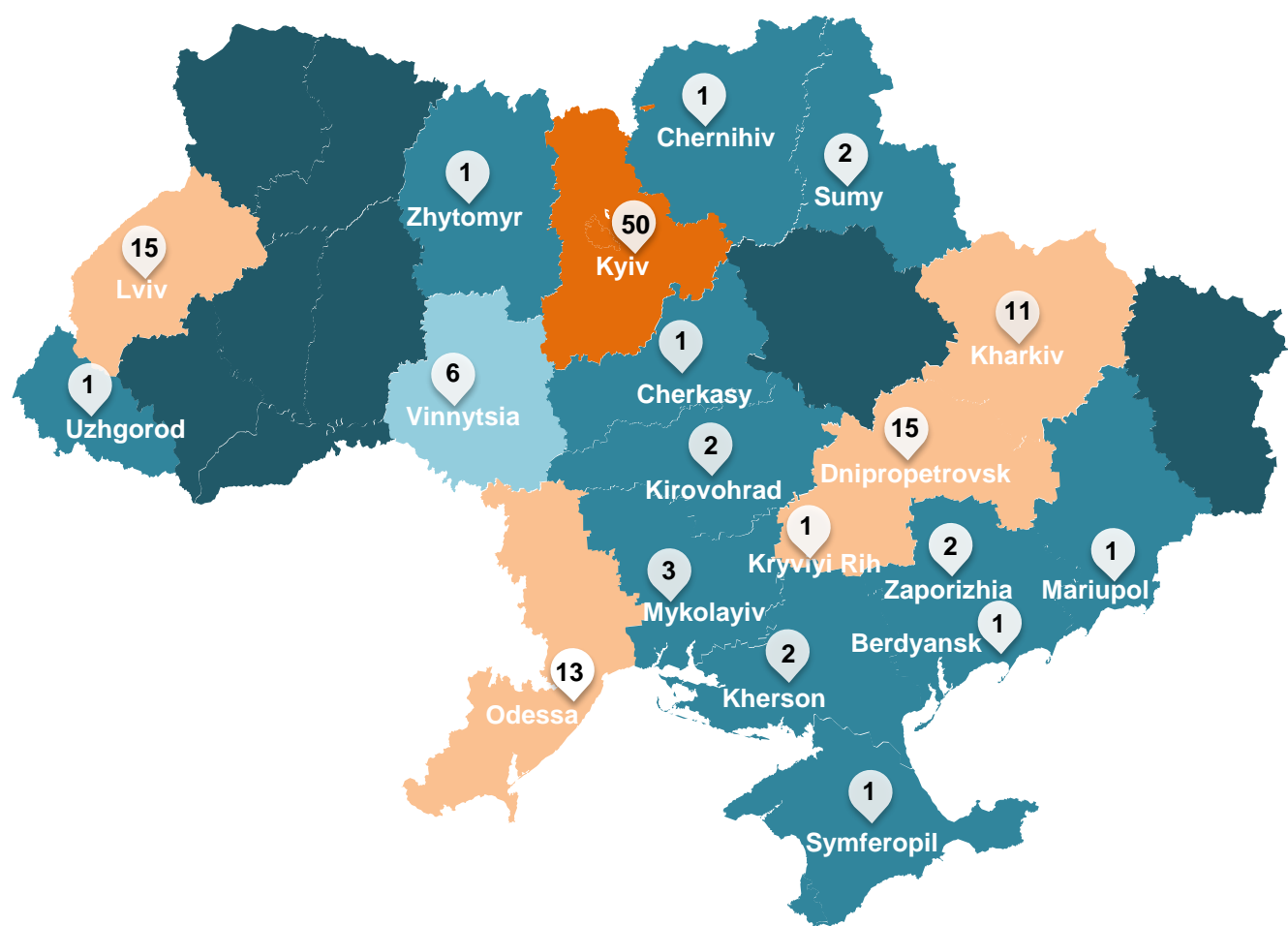
Source: Ukraine Digital News, "High Tech Ukraine From A To Z," 2015

INDUSTRY ANNOUNCEMENT

AMERICAN CHAMBER OF COMMERCE IN UKRAINE

		B2G	Driving actionable dialogue between Business and Government		
			B2B	Continuously creating opportunities for Business to Business partnerships	
			B2U	Promoting Ukraine internationally as an attractive investment destination	

LOCATION OF R&D CENTERS



The R&D centers of international companies are located throughout Ukraine with Kyiv, Lviv, Dnipropetrovsk, Odessa and Kharkiv being the most frequent locations. Most engineers work on innovation in software, gaming, telecommunication and e-commerce.

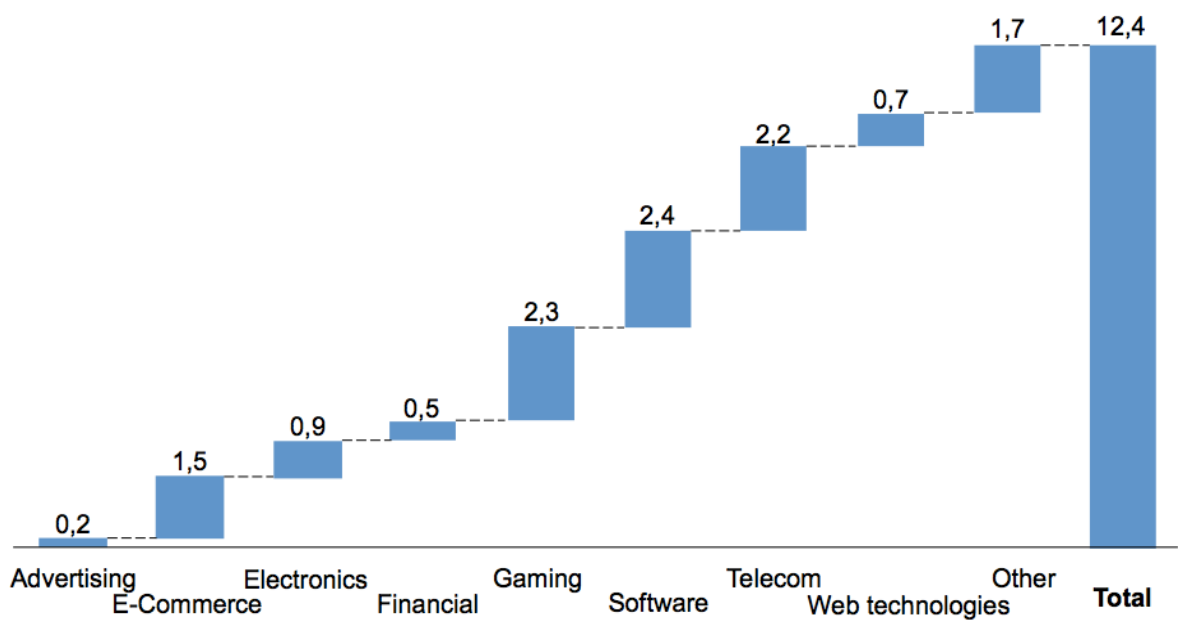
Number of Top Outsourcing Companies

0 60

Sources: Sumy IT Cluster and Ukraine Digital News, "IT Ukraine From A To Z," 2015

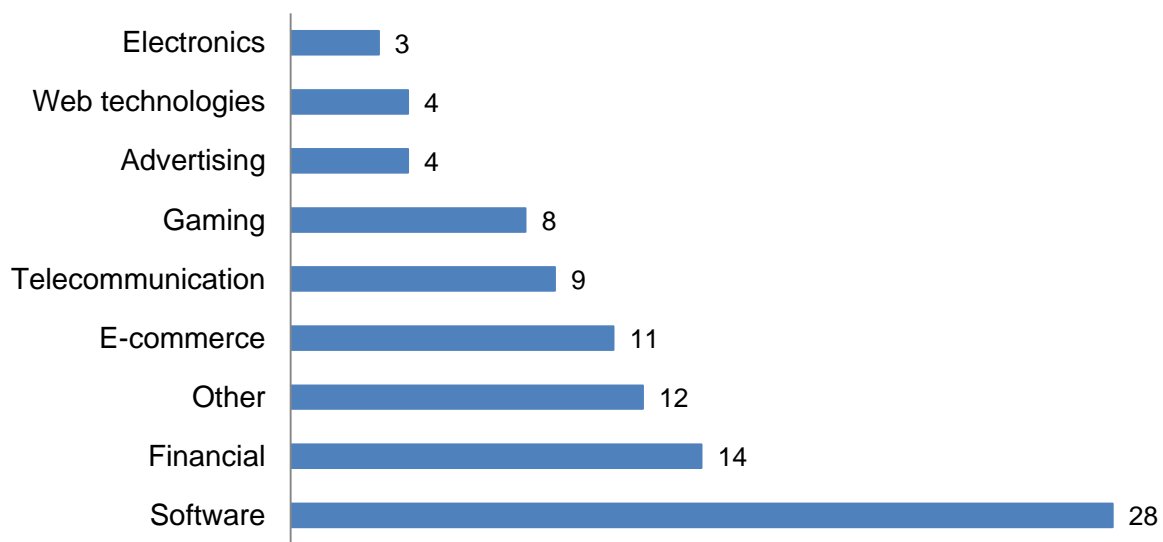
EMPLOYMENT BY INDUSTRY

Number of engineers employed in international R&D centers in Ukraine
(thousands of engineers)



Source: Ukraine Digital News, "High Tech Ukraine From A To Z," 2015

NUMBER OF R&D CENTERS BY INDUSTRY



Source: Ukraine Digital News, "High Tech Ukraine From A To Z," 2015



Both sides by the bridge

20 years of entrepreneurship & 10 years of investing

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Online services



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6.3. INTERVIEWS & ANALYSIS



How Cisco attracts and leverages Ukrainian tech talents for local and global development

Oleg Bodnar, who manages Cisco's development in nine countries of the post-Soviet area, speaks about the vendor's technological and commercial activities in Ukraine's current specific context, and discuss its further plans in the fields of research, technological partnerships, and recruitment. Also participating in the interview are Elena Domotenko, Valery Fischuk and Sergey Martynchuk.

– Cisco came to Ukraine as early as 1998. What have been your activities and achievements so far?

Oleg Bodnar: From a commercial point of view, we are the leader in the Ukrainian market in all industrial and virtually all technology segments (routing, switching, DWDM solutions, unified communications, videoconferencing, contact centers, wireless networking, network security). As for the server equipment market in Ukraine, Cisco is the third major vendor of blade servers. Over the past 10 years, the market has been actively expanding and Cisco has made a significant contribution to this development. Not only do we provide state-of-the-art equipment, we also help companies improve customer service, optimize internal business processes, increase professionalism in the design and implementation of solutions and conduct audits. Cisco has a dedicated team providing training to partners. The company is implementing various projects in Ukraine involving government agencies and in the field of corporate social responsibility. Cisco Networking Academy is the most ambitious project.

– What have been the specific contributions of your Ukrainian teams to your global technological activities/product line?

Oleg Bodnar: There are some very authoritative experts in Cisco's Ukrainian team, their opinions and ideas are taken into account during the development of the company's products. Cisco has even developed some products specifically tailored to Ukrainian customers. In addition, the company's Ukrainian employees are involved in the work of the global R&D team, providing feedback during the development of Cisco's products. This confirms the importance of the Ukrainian market and the availability of highly qualified domestic experts.

– Has your business been affected by the recent political turmoil and war in the east?

Oleg Bodnar: Certainly, their influence has been significant. Market volume has decreased, as well as the size and number of projects. However, the complexity of our projects has not decreased; on the contrary, it is increasing. Today, customers do not want to make capital investments, they prefer regular service fees. Therefore, the demand for cloud services has increased – their sales are significantly higher.

– Has this situation reduced the advantages of doing business / R&D in Ukraine?

Oleg Bodnar: Any signs of instability in a country make investments less attractive (especially in the long term). So, it is not surprising that the current situation hinders foreign investments. Current projects were not canceled, but new ones were postponed. Customers are waiting for the situation to stabilize.

– What is your strategy in Ukraine for the future?

Oleg Bodnar: Our strategy remains the same. Ukraine is a very important market for Cisco. We are implementing a number of initiatives that do not generate income now, but are aimed at the development of the market. The entire product portfolio is also available in Ukraine. However, the company still does not sell its solutions directly, we work through local partners and support them in every possible way.

PART 6: MULTINATIONAL R&D CENTERS IN UKRAINE

In addition, I want to emphasize that our activities in Ukraine are as transparent as possible. For example, at the request of our partners, Cisco delivers its hardware directly to our partners in Ukraine in order to avoid the involvement of third party warehouses and to ensure the transparency of the import. This approach has proved its worth.


– Could you offer details on your partnerships with Ukrainian universities and their prospects?

Elena Domotenko: We believe that the country's development largely depends on the maturity of its information technology. And the latter, in turn, depends on the quality of education and educational innovations. Therefore, Cisco is implementing social initiatives in Ukraine, aimed at the development of IT and its penetration into education.

The key initiative in this field is the Cisco Networking Academy that has been operating in Ukraine since 1999. It has two main goals. Firstly, to improve the competitiveness of young Ukrainian professionals in the labor market. Secondly, to reduce the shortage of IT experts. More than 50 Ukrainian universities participate in the program. Participation is free both for students and educational institutions.

Currently, there are more than 200 Cisco academies operating in Ukraine: in universities and schools, in villages, small towns and large cities, in every region of the country. At the moment, 10 thousand Ukrainians are studying in Cisco academies.


A D V E R T I S E M E N T



Building Disruptive Apps

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Can-do, forward leaned, and an amazing solution oriented attitude – only 3 terms that begin to describe TheAppSolutions. Looking very much forward to many, exciting future projects together.



Tor Karstensen,
CEO & Founder Novytec

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PART 6: MULTINATIONAL R&D CENTERS IN UKRAINE

– What are your most popular products in Ukraine?

Aleksei Bessarab: Cisco offers integrated solutions rather than individual products. The most popular ones in Ukraine include solutions for data centers, all types of IP-based communications (wireless and wired), cybersecurity (in the last year, these solutions have become more popular), collaboration (voice, video and web communications), optical and transport networks of telecom operators. In addition, solutions for 3G infrastructures of telecom operators are very popular.

– Who are your main competitors in Ukraine?

Sergei Martynchuk: We don't have any competitors with a comparable portfolio of products and services in Ukraine. There are other vendors in individual categories, but we are by far the best in interconnected architectures. We are not so concerned about competition in the Ukrainian market today, we mainly monitor and react to changes in the market itself.

– What are the main skills of your engineering staff in Ukraine and the average salaries?

Aleksei Bessarab: Firstly, we have consulting engineers in Ukraine who work with customers during the design phase. Secondly, there is a group of engineers who provide technical support. They respond to requests and provide effective technical support for our customer's implemented projects.

Finally, we have engineers who provide professional services. These experts are engaged in projects that require Cisco's participation in design, implementation and commissioning.

As for salaries, we impose severe requirements regarding skills, so Cisco looks for the best experts and offers them attractive salaries. Paying our employees a good salary means that they are not interested in moving to a foreign country.

– Is it easy to get a job in Cisco for graduates of Ukrainian universities?

Elena Domotenko: We are interested in employing the best graduates from Cisco academies. For this purpose, we traditionally select and train students. In 2014, the best students across the country were able to participate in the Cisco Engineering Incubator Program. Selected young professionals were offered a job in Cisco's global customer support center in Krakow (Poland).

Good knowledge of English (including colloquial) and the ability to work effectively as part of a team are the main requirements for working at Cisco. It is also good to have Cisco CCNA. In 2015, we are inviting students to another competitive selection procedure for the Cisco Engineering Incubator Program.

– Do you manufacture any hardware products in Ukraine or plan to manufacture any in the future?

Aleksei Bessarab: Cisco's manufacturing model involves the production of hardware by our partners in accordance with our orders. In fact, Cisco is a huge R&D center and the owner of patent rights. Products that have been developed by Cisco are manufactured by specialized companies. It should be noted that one of these companies has manufacturing facilities in Ukraine.

We do not rule out finding more partners in Ukraine to produce hardware, but this will depend on local investment and business conditions.

In addition to hardware manufacturing, Cisco is among the top three global software vendors. We work with a large number of outsourcing software development services providers, including in Ukraine.

PART 6: MULTINATIONAL R&D CENTERS IN UKRAINE

– What needs to be done to encourage companies such as Cisco, Microsoft, Intel, Qualcomm, SAP and Oracle to enter the Ukrainian market, build offices here and develop new products. What effect would their presence have on the tech market?

Valery Fishchuk: First we need to focus on the following. The main goals of every civilized country are GDP growth and improvement of its citizens' welfare. There are three scenarios for achieving these goals. The inertia scenario leads to a degradation of the country. The catch-up scenario entails huge risks, and the country will be doomed to always trying to catch up.

If a state wants to achieve the above goals faster and with fewer resources then it must intensify innovation and use creative solutions instead of repeating the experience of others. This scenario allows you to act ahead of the curve, as it provides for the development and implementation of innovative strategies.

As part of the forward-looking scenario, the country should become an active user of innovative products and services. Over time, people will get used to innovation at all levels, and they will be willing and able to create something new themselves.

Global brands are much more likely to come to countries that adhere to the innovative development strategy. If the public sector becomes a huge consumer of state-of-the-art technology, then a large domestic market is created that will attract international IT corporations.

As for the innovative strategy itself, it is based on three pillars, namely: digital processes, Internet and the cloud. Physical processes and data that can be made digital should be digitized to subsequently move them to the Internet and eventually deploy in the cloud as a service.

With the help of this algorithm, Ukraine will be able to make the leap to innovation. A country with rapidly developing digital technology will change quickly and attract investment and talent. As a result, the interest of international brands will increase significantly and corporations will not only establish sales offices in Ukraine, but also R&D centers and manufacturing facilities.

In general, only a digital state can enable the country to achieve its goals quickly, efficiently and cost-effectively.

(April 2015)

Oleg Bodnar is General Manager for the CIS 9 Region (Azerbaijan, Belarus, Armenia, Georgia, Kyrgyzstan, Moldova, Tajikistan, Turkmenistan, Ukraine, Uzbekistan). Valeriy Fischuk is Business Development Manager. Sergey Martynchuk is Regional Sales Manager. Elena Domotenko manages Cisco's CSR Program for Ukraine and Belarus.



Top 10 pitfalls to avoid when establishing your delivery center

By Igor Mendzebrovski, EVP Outsourcing at Itera

Every forward-looking company reaches a point at which it must make fundamental changes in order to continue growing. This point often comes when development demands exceed the capabilities of current resources. Companies can hire more staff, but then they face the added challenges of managing those staff, and providing the infrastructure to house them. Another option is to set up a Delivery Center (DC), which can help organizations control costs, focus on core functions, overcome talent shortages, and maintain flexibility based on market conditions.

But, while these advantages can help propel a company forward, developing a DC risks holding it back with interruptions to established workflows. Typical roadblocks to implementation include the wrong strategy, lack of understanding of the DC lifecycle, and an inability to properly manage the talents within it.

An awareness of these and other potential DC obstacles are crucial for both big multinational companies and mid-sized businesses. This article describes common pitfalls to avoid so that you can get your DC underway, build a solid organizational structure, effectively manage resources, eliminate disruption, and continue to grow revenue.

PITFALL 1: Failure to understand and manage the DC lifecycle

Based on Itera's observations, the DC lifecycle is divided into three stages: Startup, Adjustment and Optimization, and Utilization. Each phase requires organizational decisions, flexibility, and a revision of key performance indicators (KPIs). Success sometimes also requires radical changes, such as management and staff shifts. Lifecycle management is key to successful DC implementation because goals set up during the Startup phase must usually be updated during the Adjustment and Optimization phase. It's important to identify what phase you're in, as well as lessons and recovery plans for each one.

During these critical DC lifecycle management stages, various risks are generated. They include financial risks (i.e. creation of additional costs because of the disruption of normal service delivery), regulatory risks (i.e. potential for failing to operate in compliance with regulatory standards, such as ISO), and operational risks (i.e. obstacles to the execution of operations). C-level executives should always be aware of transition periods during DC implementation.

PITFALL 2: Wrong location

The next step in the DC establishment process is to choose an optimal location. The IT outsourcing market is huge and variable. It starts with India, a low-resource market, and moves through a good ratio of price to quality in Ukraine, Poland, and Byelorussia, and ends with high-priced services from the US and UK. It's up to you to decide which destination you prefer, though it's wise to think twice before making a decision in support of price optimization and sourcing for volume, as this approach will inevitably affect quality.

PART 6: MULTINATIONAL R&D CENTERS IN UKRAINE

PITFALL 3: Incomplete feasibility assessment

Renting an office and hiring resources are just the tip of the iceberg, with many processes hidden below. When thinking of launching your own DC, start with a feasibility assessment to analyze the viability of your idea. This study will serve as a major information source for a go/no-go decision. Once you have decided to pursue a business scenario, there is usually no turning back (of operations). C-level executives should always be aware of transition periods during DC implementation.

PITFALL 4: Absence of global delivery management

As soon as your feasibility assessment is completed, the organization should appoint a general manager and core team to set up the DC. This team is responsible for knowledge transfer from company headquarters to the DC organization. The role of the general manager is crucial, since the ability to react quickly and remain flexible is essential to ensuring smooth DC operations. The role of the management team includes getting the DC to a positive revenue state, so if the Utilization phase of the DC lifecycle begins with a negative revenue stream, the management team should either implement radical change, or be dismissed.

PITFALL 5: HQ's standardized processes do not fit its DC model

Absence of standardized processes across the entire organization may cause strategic, operational, financial, and regulatory risks. Consequently, your DC model requires clarity and documentation, as well as a clear definition of who the ultimate risk owners are, and who the DC is accountable to. You should appoint people to control and monitor activities following SLA agreements.

PITFALL 6: A focus on minimizing costs rather than building value

Customers tend to look for higher quality DC performance for less money, but it may take time for a DC to achieve a superior performance level. Always focus on setting reasonable goals and defining efficiency expectations from the DC setup team.

PITFALL 7: A lack of management actions between lifecycle stages

As mentioned earlier, the DC lifecycle is divided into three primary phases. The importance of this concept cannot be overstated, because each phase should be carefully analyzed to identify and avoid crisis periods. Sometimes identifying these critical stages can be nearly impossible to do up-close, so it can be helpful to invite an external consultant to analyze them. Be sure to focus on ongoing risk management and have a change in management implementation plan prepared to be executed where needed.

PITFALL 8: Inability to attract, develop, and retain talent

Another area to pay attention to in your DC management is effective talent attraction, retention, and development. In intellectual industries, resources are a critical asset, and managing them effectively is always an important issue.

PITFALL 9: High employee attrition rate

To reach a high DC performance rate, it's important to ensure the efficient allocation, deployment, and utilization of resources. We believe that team stability is the basis for good delivery. Don't forget to monitor employees' satisfaction levels and be transparent with them about their career advancement.

PITFALL 10: Cross-cultural differences

The DC business model requires constant work in dedicated cross-cultural teams located in different countries and time zones. To ensure high performance and delivery levels, staff must have strong soft, management, and cross-cultural skills.

DC lifecycle management is a serious process of reacting and taking preventive actions to eliminate disruption, which is inevitable when no action is taken within a constantly changing environment. You can choose to implement this process on your own, or share the responsibility of your DC lifecycle management with a professional consulting company that can pay close attention to each region's specific IT competencies, build diverse technological cultures, and develop the international skills of staff.

CONCLUSION

Company growth can be painful, but it doesn't have to be. With the right resources, IT-component businesses can expand their workforce easily and smartly. By starting and managing a DC, companies can get on with their core operations, yet still take advantage of an expanded resource set. Starting a DC can be challenging, with many potential pitfalls, but savvy companies can avoid these roadblocks and watch their business soar to new heights.

Just remember that building personnel is good, but building competencies is even better: it allows you to concentrate on delivery quality, optimal rates, and high-level resources, which are all crucial for establishing your Delivery Center.

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INTERNATIONAL PR AND MARKETING OPPORTUNITIES
BY UKRAINE DIGITAL NEWS



Software developer Innovecs opens internationally-oriented Blockchain R&D center in Kiev

Ukraine Digital News, Sept. 30, 2015

Earlier this month American-Ukrainian software development company Innovecs launched a Blockchain research and development center in Kyiv (Kiev). The center was set up with the participation of Mikhail Chobanyan, co-founder of Bitcoin Foundation Ukraine (BFU).

A blockchain is a distributed database that maintains a continuously growing list of data records. This technology offers protection against tampering and revision, even by operators of the database. It is used as a distributed transaction ledger for some cryptocurrencies, including bitcoin.

“The purpose of this R&D center is to learn more about the technology, explore its potential by testing it,” Innovecs co-founder and CEO Alex Lutskiy said in an exchange with Ukraine Digital News.

“Our main focus is on developing applications and integrating the technology in the real economy.”

Innovecs’ already had a Blockchain expertise which had been used to develop solutions in the fields of e-government, financial technologies and business solutions, Lutskiy added.

“Our main focus is on developing applications and integrating the technology in the real economy,” he said.

In particular, the company plans to connect Ukrainian banks to Ripple, an Internet protocol to secure financial transaction data and accelerate payment transactions, according to Ukrainian tech blog AIN.UA.

The Blockchain technology is quite popular in the country, and many Ukrainians are among advanced Bitcoin users, according to BFU.

“This allows us to build a professional team here in Ukraine. But our orientation is global, and we see our mission in building ties between western Blockchain thought leaders and Ukrainian experts,” Lutskiy said.

This article first appeared in Ukraine Digital News www.uadn.net/?p=32713

6.4. INTERNATIONAL PLAYERS INVOLVED

PART 6: MULTINATIONAL R&D CENTERS IN UKRAINE

 SMTP email delivered	 TubeMogul	 Protrader	 WAVES	 CLOUD MADE
 KGK	 SDL	 Orga Systems.	 IntellectEU	 Limelight NETWORKS
 Mita-Teknik Great at Control	 Electric Cloud	 Social Quantum	 softXpansion Powered by eKnow-how	 StrikeAd
 Infrascale™	 PosiTrace From Global Fleet Management	 onapp	 BMFN GLOBAL MARKETS DELIVERED LOCALLY	 SIGHT POWER
 Talkable	 DENTSPLY IMPLANTS	 TFG An Intapp Company	 SANDSIV™ Customer Experience & Beyond	 Rakuten
 Wildix	 Qbikz	 sitronics telecom solutions	 QUADROX	 2GIS
 ACT FOREX	 InfoReach	 imagineer TECHNOLOGY GROUP	 Paymentwall	 ControlPay
 Broadvox™	 OPERA™ software	 LEXALYTICS	 livestream	 leverate
 TransferWise	 sysnet® global solutions.	 INFORMATION SECURITY SearchInform	 TERADEK	 SMARTLING

OTHER GLOBAL TECH LEADERS PRESENT
IN UKRAINE WITHOUT R&D ACTIVITIES



Office Type: Marketing	Office Type: Support & Sales	Office Type: Support, Consulting
Industry: Search	Industry: Software and hardware	Industry: Software and hardware



Office Type: Support	Office Type: Sales & Support	Office Type: Sales and Support
Industry: Finance	Industry: Semiconductor	Industry: Finance, SAAS



Office Type: Processing center	Office Type: Marketing	Office Type: Sales
Industry: Finance	Industry: Finance	Industry: Online Search



Office Type: Sales and Support	Office Type: Sales & Support
Industry: Finance, Payments	Industry: Finance, Payments

IT UKRAINE FROM A TO Z

P A R T 7

P U B L I C P O L I C I E S

7.1. ONGOING REFORMS

▪ **Ukraine signed several international cooperation agreements**

The purpose of the Ukraine-European Union Association Agreement, which was signed in June 2014 with 28 member states of the European Union, is to establish political and economic cooperation between the parties and to converge economic policy, legislation and regulation across various areas. By signing the agreement, Ukraine committed to economic, judicial and financial reforms and to conforming to EU technical and consumer standards while the EU showed strong commitment to high tech cooperation. The agreement also includes a free-trade deal that is expected to be implemented in 2016. The science, research and innovation sectors, as well as high-tech investment and e-commerce are directly or indirectly impacted by important sections of the economic part of the agreement.¹

Ukraine is now a member of such EU programs as the Eastern Partnership Programme — which includes a chapter about the harmonization of digital markets, — the program for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (COSME), the Enterprise Europe Network and the Horizon 2020 program. The latter – with a seven billion euro budget over seven years – supports financially research and innovative solutions.

In November 2015, Ukraine was invited to join the WTO's Government Procurement Agreement. While this participation allows Ukrainian companies to bid in tenders in other countries, the economy ministry pledged to support to Ukrainian players in the entire tender process – from contacting embassies to involving volunteering expats to support Ukrainian bidders.²

▪ **A continued deregulation and reform effort**

The government has adopted an aggressive action plan to resolve 130 of the most painful issues for business. Among the recently achieved reforms impacting the IT sector have been the following:³

- The procedure for foreign IT professionals to obtain work permits has been simplified.
- Compulsory state registration of franchising contracts has been abolished, which will benefit in particular to industries which are integrated into the global markets.

As of late 2015, the following additional reforms were being prepared or pending approval:

- Several draft laws aimed to improve the legal protection of intellectual property. Many of these changes would harmonize Ukrainian legislation with the EU acquis and Directives in this field, in line with the Association Agreement.
- Amendments to the Criminal Code were drafted to put an end to the illegal or excessive methods used by some police officers while inspecting IT companies (in particular, the physical seizure of these companies' servers in attempts to extort bribes from IT entrepreneurs). The proposed changes would affect the inspection and search procedures while providing the concerned companies with temporary access to property and documents.
- In the field of export deregulation, another draft law would allow all individual entrepreneurs and freelancers to use invoices as legal confirmation of work completion and acceptance on the client side. Rules applying to companies also aimed to simplify the requirements to international contract and invoicing.

1. <http://uadn.net/?p=30955>

2. <http://uadn.net/?p=33313>

3. <http://www.kyivpost.com/opinion/op-ed/three-successes-in-it-deregulation-give-hope-for-future-387258.html>

- **Ukraine has been actively embracing e-government.**

The implementation of e-government is expected not only to make business operations easier and increase transparency, but also to save billions in tax revenue. In the fall of 2015, the government launched eData, a portal to track the use of public funds and the distribution of the state budget. This system aims to enable any citizen to check government transactions.

Another project, igov.org.ua, was launched to connect citizens directly to over 60 ministries and agencies. Over time, the platform will make it possible to obtain any kind of certificate, document, registration license via online government databases. (These and other measures are discussed further in the interview with Dmytro Shymkiv, Deputy Head of the Presidential Administration.)

- **A new e-commerce law was adopted in September, 2015**

The new e-commerce law guarantees equal legal status and legal protection for electronic and traditional transactions. In addition, the new law provides definition for such terms as “electronic transaction,” “electronic message”, and “Internet store.” Now electronic transactions will be regarded as valid by courts and other government bodies and online consumers will be protected by law.⁴

At the time of implementation, the law was expected to accelerate Ukraine’s fast growing e-commerce market (currently estimated at some \$2 billion).⁵ In addition, the recent introduction of the 3G network in the country and the lifting of a number of barriers in international payments by the National Bank of Ukraine will further aid the sector’s boom.

- **Ukraine’s fight against corruption has been slow amid the military crisis**

As of late 2015, Ukraine has not yet experienced the radical change in the political and economic climate that was expected. However, Ukraine was expected to pick up the pace of the reforms with a ceasefire holding in the east of the country, and some progress has already been made.

At the highest level, the authorities are aware that information technologies may play an important role in fighting corruption and establishing the rule of law, as illustrated by a number of e-government initiatives (see interview with Dmitry Shymkiv).

- **Digitalization of regional cities is to bring growth to regions outside of the capital**

Many Ukrainian cities have a strong base of technical universities and benefit from the presence of large IT employers. Local IT communities are already collaborating with city governments on creating a number of IT initiatives that would make local governments more transparent, efficient and the lives of local citizens easier. In line with this trend, regional IT clusters have been recently launched in such cities as Cherkasy, Chernivtsi, Dnipropetrovsk, Kharkiv, Lutsk, Lviv and Odessa, aiming to improve the environment and conditions for accelerated industry development (see Part 2).

4. <http://uadn.net/?p=32649>

5. http://uadn.net/files/ua_ecommerce.pdf

7.2. INTERVIEWS & ANALYSIS



Dmytro Shymkiv, Deputy Head of the Presidential Administration: "We want the high-tech sector to become one of the pillars of this country's future"

A technology entrepreneur with a rich background in Ukraine, Europe and the USA, Dmytro Shymkiv headed Microsoft Ukraine when he was appointed to the Presidential Administration in the months that followed the Maidan revolution. In this exclusive interview, he shares his vision of Ukraine as a country of innovators and analyzes Ukraine's first steps on the path to reforms.

– Recently you participated in an exhibition of Ukrainian inventions,⁵ presenting them in Kyiv and Washington. Do you believe that Ukraine is a country of inventors? Can it become a “tech nation?”

Throughout its history, Ukraine has been a country of innovators, of creativity, of smart people – people who invented and built famous things in a wide variety of areas, from the gas lamp to heart surgery, planes, hard drives, IMAX, electronics and aerospace. The fact that Whatsapp, Paypal and several other very successful tech companies were founded or co-founded by Ukrainians is no accident. So naturally we supported this exhibition and published a book on 50 inventions that Ukraine has bestowed the world – all with the aim of telling the story of Ukraine as a country of innovators.

Just look at Ukraine's record in a range of international indexes: we are in the top 10 countries for graduates in engineering, manufacturing and construction; we are third in the world in education overall, and 30th in the quality of math and science education. It is no surprise that the country's human capital index ranks 31st in the world in 2015.

These results did not simply happen; they stem in good part from the historical legacy of innovation forged in our land in a wide variety of areas. And Ukraine will prove even more innovative in the future, I firmly believe, becoming a center for innovation and creativity in Europe.

– Do the Ukrainian authorities believe that the IT sector should be run essentially by free market mechanisms, or that it deserves special government attention and strategy?

In 2011 new legislation was enacted specifying ICT as one of the nation's priority development areas; unfortunately not much has been done since then to develop and promote the sector. The IT industry has been developed by the community's own efforts, by the people themselves – the brainpower and willpower of those many Ukrainians who love innovation and dedicate their lives to it.

The question now is not only one of strategy, but of structuring a very clear execution plan. This is one of the initiatives that the president and the government will be focusing on: how we can ensure that the high tech sector will become one of the pillars of this country's future. Look at Ukraine's competitiveness in global investments: agriculture and biomedicines, chemicals and manufacturing materials, security and defense, precision machinery, radio electronics, aerospace, pharmaceuticals, telecom – all these sectors are closely integrated with high-tech.

5. <http://www.president.gov.ua/en/news/v-administraciyi-prezidenta-ukrayini-vidkrilasya-vistavka-50-35915>

So today we are pursuing two priority directions: first, to create more jobs for highly-educated, highly intelligent workers – which usually drives higher salaries/incomes, improved working conditions and higher ecological awareness along with a commensurate rise in innovation, foreign capital input and investment. Second, to bring more R&D to transform the country into a tech hub in which great companies can grow from scratch, rising from the idea stage to full fruition. The recent acquisition of several Ukrainian tech companies by international firms is clear confirmation that R&D activities can and do flourish in this country.



In September 2015, Ukrainian president Petro Poroshenko (right) with Dmytro Shymkiv (middle) held a Skype conference with Bill Gates. (Photo credits: Presidential Administration)

– Which are the most important concrete measures taken by the government with regards in the field of IT since the Maidan revolution? Have they already had some effect in real life?

Technology was a key component of the Maidan revolution [in late 2013-early 2014]. Cloud computing and social networking actually enabled important connections at the time, allowing people to share the revolution's ideas and news around the nation, even as many IT professionals were themselves on the barricades.

After Maidan, many initiatives were set in motion. First, we managed to launch 3G in the country through a tender in early 2015. This has brought 11 billion hryvnias⁶ into state coffers, while citizens in more than 380 cities can already benefit from fully operational 3G networks. Several e-government services have been launched, including the ProZorro⁷ and the iGov.org.ua⁸ projects.

6. Nearly 279 million euros at that time.

7. Originally an initiative from Maidan volunteers, this online public procurement platform received decisive support from Dmytro Shymkiv in 2014. It aims to "make public spending transparent and effective and prevent corruption through public monitoring and a wider range of suppliers." <https://youtu.be/OTfMUcFr1WY> <http://uadn.net/?p=33043>

8. The iGov.gov.ua portal gathers the services of more than 60 ministries and agencies.

eData, another initiative driven by finance minister Natalya Yaresko, promotes visibility for all transactions involving the use of public funds.⁹ Electronic petitions, launched a few months ago, represent another great win.¹⁰

These and other digital programs and initiatives are being completed under the umbrella of the Digital Ukraine¹¹ project. And we're not about to stop there. High tech is definitely on the agenda for the government and parliament.

One of the state's crucial missions is to promote Ukrainian businesses, to point out opportunities for young entrepreneurs. In the field of taxation and special tax regime areas, we need to find a model which would stimulate high-tech investment or re-investment without being discriminatory toward other segments of the economy. All this is currently under discussion in the parliament and in government agencies.

On the international side, Ukraine has joined Horizon 2020, which will allow us to launch products with the support of the EU. Several companies have already applied and are participating in interesting research projects in cloud technologies, software solutions and services, agriculture development, and other areas.



As Deputy Head of the Presidential Administration, Mr. Shymkiv is responsible for reforms coordination, innovations and change management in this administration. He is also co-chair of the Executive Reforms Committee and Secretary of the National Reforms Council, an advisory body to the president. The Committee's main function is to prepare proposals for reforms strategic planning, coordination of reforms implementation and monitoring. Besides, Mr. Shymkiv is responsible for change management, reorganization, innovations and implementation of e-government in the Presidential Administration.

– Please tell us more about your e-government initiatives. What are the strategy and the goals here?

After my appointment to the presidential administration, I insisted that we not just talk about e-government but actually build it. Many great projects have been launched or even completed: ProZorro, the Open data initiative, eData, igov.org.ua, electronic petitions, etc.

The eData project was driven by Natalya Yaresko, while igov.org.ua was created on my whiteboard with Dmitriy Dubilet.

As for the electronic petition platform, which is available on the presidential administration website,¹² it is already a fully-implemented system with active citizen participation. More than 3.5 million people have visited the site in the few months since its launch; of these some 700,000 users have used the service.

Today the most efficient way to achieve results is to deploy systems outside the government. Then we make sure that the government actually starts using the newly-deployed system.

9. <http://uadn.net/?p=32706>

10. <http://uadn.net/?p=32636>

11. http://reforms.in.ua/sites/default/files/imce/digitalukraine_projectsstatus_eng.pdf

12. <https://petition.president.gov.ua>

We've seen e-government systems emerge in many government bodies, including the ministries of justice, economy, infrastructure and others, with the presidential administration among the pioneers in digitizing many processes.

It is important to have a strong civil society with the active participation of IT people, as well as a pro-European and forward-looking government and politicians – all with a strategy that is fully aligned with the EU's digital agenda. We need to have systems that people use.

– What would you like to say to international tech players about business/R&D opportunities in Ukraine?

Attracting foreign investors is a priority. In my discussions with them – for example, with Ericsson's CEO in Davos – I can see that they have a strong interest in Ukraine. This has been demonstrated by Ericsson's recent acquisition of a Polish-Ukrainian company with an R&D center in Ukraine. George Soros, too, has started investing in Ukraine, his first deal involved high-tech company Ciklum.¹³ Many more such moves are yet to come.

I would say to these potential investors: If you are not considering to invest in Ukraine, your competitors are. You will hear more and more stories about products designed in Ukraine, manufactured in China and sold in the USA. Ukrainians, as I pointed out, are very creative people – and you have a great opportunity now to place your R&D here, whether you are in the IT, telecom, radio electronics, security, defense, or precision machinery business.

To support this on the domestic scene, the BrainBasket foundation is doing a lot to teach IT programming skills across Ukraine.¹⁴ Another initiative is Go Global, launched with the president's support. We are conducting a broad-based campaign to spread English throughout the country, so that Ukraine can assert itself as a tech nation and as a nation of global reach, with a bright future as both.

(December 2015)

13. <http://uadn.net/?p=32890>

14. Launched in 2014, this NGO aims to train 100,000 new IT specialists by 2020. See above the interview with the foundation's director Vladimir Liulka

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International expert Phillip Hatch: Should reforms succeed, "Ukraine could export \$275 billion in technology- related goods and services"

Phillip J. Hatch, a global strategy, workforce and economic development executive, recently completed an exhaustive research project exploring the Ukrainian economy.¹⁵ This study captures the economic impact of the current crisis as well as the risks associated with ongoing corruption and IP protection weaknesses. Hatch also estimates the country's theoretical economic targets if these problems will be resolved, given Ukraine's population, education rate, and technical and scientific skill density.

UKRAINE'S CURRENT ECONOMIC UNDER-PERFORMANCE

In our research, we found Ukraine is greatly underperforming across the entire economy. Our data suggests that while the current crisis in Eastern Ukraine has had a significant negative effect on the entire Ukrainian economy, Ukraine's ongoing struggles with corruption have had an even larger impact.

Ukraine's economy should be a \$1.125 trillion economy (instead of 131.81 billion in 2014)

If Ukraine is able to resolve ongoing corruption and IP protection concerns, there is every reason to believe Ukraine can achieve a place among the top global economies.

While Ukraine has valuable natural resources and agriculture, Ukraine's greatest and most underleveraged asset is the Ukrainian labor force. Ukraine, with the:

- 13th largest tertiary educated labor force;
- 8th largest STEM (science, technology engineering and mathematics) labor force;
- and the 6th highest STEM skills density globally,

generated a 5-year peak GDP per capita of \$4,029 in 2013. This places Ukraine below countries such as Angola, Iraq and Swaziland.

TECHNOLOGY-RELATED EXPORTS

Analysis of Ukraine's technology-related exports reveals the following:

- **High-tech goods exports:**¹⁶ five-year peak total value: \$2.6 billion; exports per capita: \$57.52.
- **ICT goods exports:**¹⁷ five-year peak total value: \$706 million; exports per capita: \$15.49.
- **ICT service exports:**¹⁸ five-year peak total value: \$5.02 billion; exports per capita: \$110.38.
- **Total technology goods and service exports:** five-year peak total value: \$7.76 billion; exports per capita: \$170.54.

15. This study can be downloaded at no charge from www.akholi.com

16. High tech goods are products that require a great deal of R&D, intellectual property and a highly educated workforce to define and manufacture. Examples include aerospace, pharmaceuticals, and scientific instruments. This category excludes ICT hard goods that are included in ICT goods exports.

17. This category includes telecommunications, audio and video, computer and related equipment; electronic components; and other information and communication technology goods.

18. This category includes computer and communications services (telecommunications and postal and courier services) and information services (computer data and news-related service transactions). The indicated amount corresponds to data captured automatically by the IMF and the World Bank, which track and code all cross-border transactions. This indicator includes more than just IT outsourcing (e.g. courier services). IT outsourcing service exports alone are not tracked specifically in the IMF and World Bank system. Their true value is lower than that of the ICT service exports, but arguably higher than the common \$2.5 billion estimate — which is based on potentially underreported data from IT firms.

While Ukraine’s current technology exports are worth several billion dollars per year, technology exports represent Ukraine’s single worst performing industry across the entire country.

Ukraine’s technology exports per capita rate of \$170.54 is:

- 10.6 times lower than the Central and Eastern European regional average of \$1,808;
- 21 times lower than the European Union average of \$3,568;
- 29 time lower than Czech Republic’s rate of \$4,965

In fact, Ukraine’s current technology exports per capita score ranks Ukraine between Surinam and Guyana.

INDUSTRY TARGET: \$275 BILLION

To help us gauge economic potential, we developed a series of models that compare key economic indicators on a per capita basis against a series of aggregated countries. Running Ukraine’s technology exports through our defined models, we have the following theoretical market values:

Model		Theoretical technology exports value	Definition
Current Ukrainian performance		\$7.76 billion	Five-year peak value for Ukraine.
1	World average	\$34.31 billion	Average per capita rate of all countries globally.
2	CEE regional average (all countries)	\$86.89 billion	Average per capita rate of all countries within the greater CEE region.
3	Metric 2nd quintile average	\$67.95 billion	Average per capita rate of countries ranking within the metric’s 2nd top quintile.
4	CEE region, top 5 country average	\$187.45 billion	Average per capita rate of the top five metric performing countries within the CEE region.
5	CEE region, top country rate	\$287.15 billion	Average per capita rate of the single top metric performing country within the CEE region.
6	13th ranked country equiv. rate	\$84.62 billion	Average per capita rate needed to achieve the 13th largest value globally representing Ukraine’s rank as the 13th largest tertiary educated labor force.
7	European Union average	\$153.14 billion	Average per capita rate of all countries within the European Union.
8	Top tertiary education rate quintile average	\$187.69 billion	Average per capita rate for the metric by all countries ranked in the top tertiary education rate quintile.
9	Top metric quintile average	\$365.36 billion	Average per capita rate of all countries ranked within the metric’s top quintile.
10	Top metric performer rate	\$4,197.91 billion	Per capita rate of the country performing the best on a per capita basis to establish a theoretical metric cap.

After careful consideration of all of the above models, we have set a target technology export value for Ukraine at \$275 billion per annum.

This amount would put Ukraine near the top regionally in regards to both ICT goods and high-tech goods exports per capita. This target would place Ukraine at the top regionally (slightly ahead of Estonia) in regards to ICT service exports per capita.

The total target value of \$275 billion per annum is aggressive, but completely possible. This would place Ukraine (rightfully so) among global technology leaders such as Korea, Japan and United Kingdom.

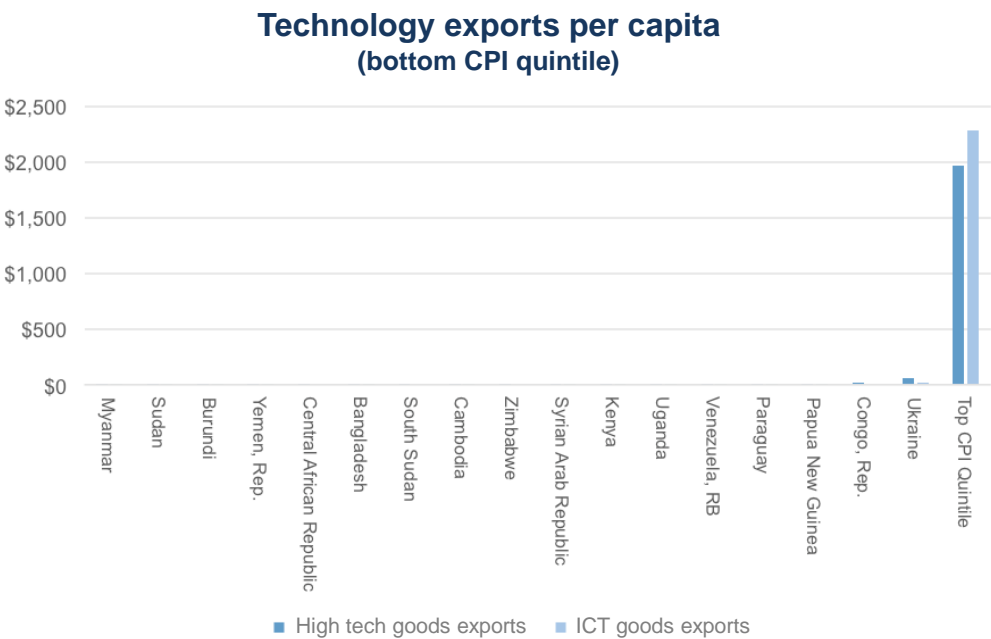
Achieving this target would completely transform the Ukrainian economy. If Ukraine were to achieve this target while leaving all other exports flat, Ukraine’s GDP market price would likely exceed \$700 billion.

This is Ukraine’s greatest opportunity for growth. Our modeling indicates that no other industry or export has the same room for growth. This is Ukraine’s leading opportunity for achieving a rank of a true global economic leader.

RISK: CORRUPTION AND IP PROTECTION

By far, Ukraine’s greatest threat to achieving this target is its ongoing problem with corruption and IP protection. In Transparency International’s 2015 corruption perceptions index (CPI), Ukraine ranked low with a score of 27 (up from Ukraine’s 2014 score of 26). This places Ukraine within the bottom CPI quintile globally.

There is a massive and absolute correlation between a country’s CPI and their ability to achieve success with technology-related exports.



In the above chart, we compare both high tech goods exports and ICT goods exports per capita of Ukraine’s peer countries in the bottom CPI quintile against the average high tech goods and ICT goods exports per capita of countries within the top CPI quintile.

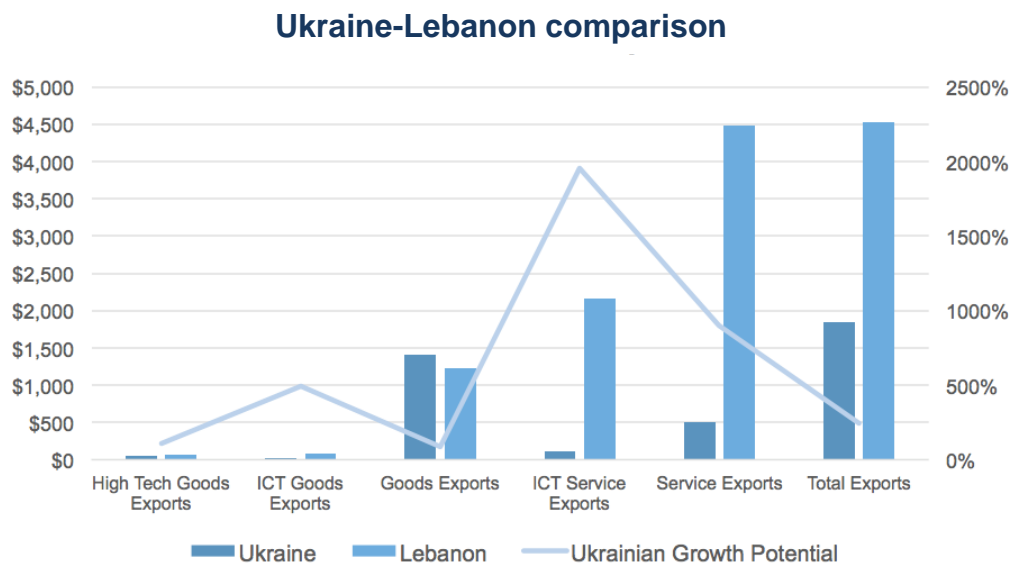
The pattern is obvious. No country has ever successfully developed a high-value technology goods exports industry without first resolving ongoing corruption and IP protection issues – regardless of trade agreements, trade zones development, state development programs, etc.

However, a few countries have demonstrated an ability to achieve high levels of technology related service exports.

This ability has been exemplified by Lebanon.

This country, with:

- a tertiary education rate that is 62% of Ukraine's;
 - a nearly identical corruption index score;
 - a massive ongoing conflict within neighboring countries;
 - and recent military conflicts in the country;
- posted 5-year peak values in 2014 for several economic indicators demonstrating higher performance than Ukraine regardless of the above challenges.



If Ukraine were to match Lebanon's ICT service exports per capita rate of \$3,224, its total ICT service exports would be \$97.7 billion – an increase of over \$92.7 billion from Ukraine's current ICT service exports levels.

There is an immediate opportunity for Ukraine to grow.

ACHIEVING THE \$275 BILLION TARGET

Achieving our target of \$275 billion in technology goods and service exports would place Ukraine within the top technology countries globally. This is an achievable target although aggressive.

In order to achieve this target, Ukraine will need to do the following:

- a. **Resolve corruption and IP protection issues** – By far, Ukraine's top priority must be a final resolution to Ukraine's ongoing corruption and IP protection concerns. Ukraine must resolve this quickly and absolutely.
- a. **Make the technology industry a state priority.** – Ukraine must decide to become a true global technology leader and make the technology industry a true state level priority. Ukraine should follow the lead from countries such as Ireland, Malaysia and Taiwan in transforming their economy through the development of the technology industry.

- c. **Implement a program management office (PMO).** – Ukraine needs to establish a true program management office to drive this State level initiative. This PMO should answer to the Cabinet of Ministers and be responsible for defining a comprehensive industry plan and driving execution of this plan. If the technology industry is a true State level priority, this is an absolute required component of the overall program.
- c. **Begin engaging top global employers.** – Through our own pilot projects in Ukraine and through our research, we have demonstrated a true willingness from the world's top employers to work with the Ukrainian government and Ukrainian higher education to develop a future state workforce. Ukraine will not be able to increase FDI until corruption issues are resolved. But, Ukraine can and must greatly increase the participation of the global private sector in developing the Ukrainian labor force and growing the technology exports industry. This will seed massive growth once Ukraine's corruption and IP protection issues are resolved.
- c. **Grow ICT service exports now.** – As noted, Ukraine can achieve significantly higher ICT and technological service exports now while addressing ongoing corruption and IP protection issues. Doing so will provide Ukraine a significantly higher number of jobs, tax revenues to fund future growth (and the fight against corruption) and can theoretically double the Ukrainian GDP by itself.

Once Ukraine is able to successfully resolve ongoing issues related to the crisis in Eastern Ukraine, ongoing corruption and IP protection issues, Ukraine will be able to do the following:

- f. **Grow technology goods exports.** – Technology goods exports is Ukraine's greatest opportunity for economic growth. Once Ukraine has resolved corruption and other risk concerns, this should be Ukraine's single highest priority for the national economy.
- f. **Captive center development.** – In parallel to developing technology goods exports, Ukraine should begin leveraging the relationships with global employers to become the top technological captive center market globally. (Delivery centers owned and operated by major international employers in Ukraine hiring Ukrainian talent.) Ukraine can likely double the number of tech related jobs in Ukraine through captive centers alone.

A 20-year senior executive within the global workforce and economic development space, Mr. Hatch has worked extensively with top public and private sector leaders on a variety of different topics. With several of the world's largest banks and top employers, Mr. Hatch has helped them gain a greater understanding of global economic and workforce issues. Mr. Hatch has also helped many of the world's top employers partner with foreign governments to build a future state workforce.

Working with government leaders, Mr. Hatch has helped countries address a variety of issues related to workforce and economic development. Mr. Hatch specializes in creating effective partnerships between the world's top employers and government agencies to jointly develop a country's economy and create jobs.

Mr. Hatch is a noted thought leader in this space and has authored, contributed to or been referenced by hundreds of books, articles and reports covering a variety of global strategy, economics and workforce related issues.

Mr. Hatch can be reached at phillip.j.hatch@gmail.com

Why high-tech goods and
service exports are Ukraine's
best chance for achieving
significant economic growth.

Phillip J. Hatch

Ukraine Economic and Technology Assessment

2016 Reports

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Σ (Akholi Research)

Akholi Research provides detailed insight into overall workforce and economic performance through detailed quantitative research and modeling. Through our research and modeling process, we help countries drive greater private sector involvement in the development of both workforce and economic growth.

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Bohdan Hawrylyshyn: Ukraine should not miss its second chance to become a technological hub

Bohdan Hawrylyshyn, born in the small Ukrainian village of Koropets 89 years ago, has come a long way. After his family moved to Canada during World War II, Hawrylyshyn went from working as a lumberjack, and then a waiter, to becoming one of the world's top economists.

From 1960, Hawrylyshyn taught economics-related subjects at the International Institute for Management Development in Geneva, Switzerland until becoming its director in 1968. Over his career he has produced hundreds of scientific papers on management, managerial education, economics and politics.

But he always had Ukraine in his heart. "It's not just a territory," Hawrylyshyn said in an interview with the Kyiv Post on Jan. 27. "Whatever I did, I did as a Ukrainian, not only as Hawrylyshyn."

He returned to his motherland in 1988 and helped start the International Management Institute, the first business school in Ukraine. The next year, 1989, Hawrylyshyn initiated the establishment of the Vidrodzhennya international charity organization, which was financed by another famous philanthropist and U.S. billionaire, George Soros.

Hawrylyshyn says he has faith in technology, the young generation and transformation without revolution. He thinks the tech industry could play a key role in Ukraine's future regeneration.

"IT is a relatively new sector," Hawrylyshyn told the Kyiv Post. "It continues to develop very quickly, and it can play a crucial role in the country's transformation in the future – hopefully not too long from now."

The potential here was always fantastic, he said. "The state of Ukraine is terrible, but the potential is great!"

Apple said: "Look, you have a lot of good mathematicians in the country."

According to him, local scientists, researchers, and engineers "missed some chances" to turn the country into a technological hub about 13 years ago, when there were "concrete proposals from (U.S. multinational tech company) Apple Inc."

"They (Apple) said, look, you have a lot of good mathematicians in the country," Hawrylyshyn said.

Apple said that if they could supply modern technology and organize a study program for mathematicians, programmers and computer engineers, "Ukraine within three years will be exporting \$5 billion worth of programming a year," Hawrylyshyn said.

"(But) the idea that of creating something that could be a good business" could not be grasped by the Ukrainian government, he said. "They just said no, no, not interested."

The reason, Hawrylyshyn explains, is that the people were “so used to working on what the government told them to work on.”

So instead of Ukraine becoming a tech hub, it was India, which now exports about \$20 billion worth of tech services a year, Hawrylyshyn said.

This means that Ukraine, with its \$2.4 billion earned on outsourcing in 2014, according to IT factbook “The Rise of a Tech Nation,” is now nearly 10 times behind India.

“A transformation of Ukraine is necessary,” Hawrylyshyn goes on.

IT PEOPLE BETTER LEADERS?

According to Hawrylyshyn, the recipe for transformation that won't cause further revolutions is simple – the people in government should be patriotic, competent, and honest. “If we had people in the three branches of government with these three characteristics, we would be a flourishing country,” he said.

“Those from IT have better chances (to be Ukraine's leaders) than those that are working in other fields,” he said. “Because they're really up to date, very often they have international experience, and they're also inclined to keep learning.”

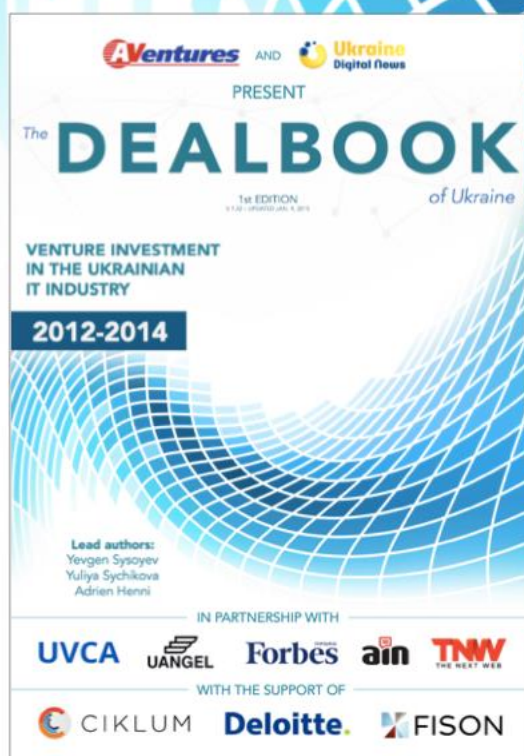
However, Hawrylyshyn places emphasis not only on the IT industry. He said Ukraine is “big enough, to actually have a broad range of economic activities,” especially after the changes in the government.

“(Former Ukrainian President Viktor) Yanukovich and his wonderful colleagues sucked the blood from businesses and enterprises, torn their skin, their profitability,” Hawrylyshyn said. “Now there's talk in the government that there should be attention to business, and startups in particular.”

This article is based on an interview which was taken by Yuliya Sychikova (Ukraine Digital News) and Denys Krasnikov (The Kyiv Post) in January 2016.

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about the Ukrainian venture and startup
ecosystem... but never thought you
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A P U B L I C A T I O N O F

Aventures AND **Ukraine Digital News**

IT UKRAINE FROM A TO Z

APPENDICES

IT UKRAINE FROM A TO Z

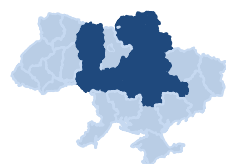
A P P E N D I X A

SOFTWARE R&D

AND

IT OUTSOURCING






C O M P A N I E S



CENTRAL UKRAINE & DNIPROPETROVSK



MAIN IT SERVICE COMPANIES

Note: In these tables, companies are listed according to the location of their headquarters. For example, SoftServe, a sizeable player with headquarters in Lviv and an office in Kyiv, is listed in the Lviv section.

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
	5,000 affiliated freelancers	Founded in 2013, Artel Outsourcing Group is a full scale outstaffing service provider of web, mobile and other R&D services covering more than 80 technologies. It has more than 5,000 affiliated freelance engineers. The group also operates an online jobs marketplace (www.aog.jobs) featuring a considerable pool of talents along with services for customers.	HQ: Cherkasy +Kyiv	Edinburgh
	722	Custom software development, software maintenance and support, creation of distributed, large scale laboratory information systems for hospitals. ISD is a subsidiary of US healthcare solution publisher SCC Soft Computer (see Appendix B)	HQ: Dnipropetrovsk +Berdyansk, Lviv, Zaporizhia	USA
	400	Game development for PC, Mac, Web, iOS, Android and social networks.	HQ: Vinnytsia +Kyiv, Khmelnytsky	
	390	Interactions recording and analytics, speech and language technologies, full-cycle embedded and mobile development	HQ: Vinnytsia	USA
	250	Computer aided design, engineering, manufacturing and construction. Company's clients include many Fortune 500 companies	Dnipropetrovsk, Khmelnytsky, Sumy	HQ: USA
	190	Virtualization and cloud computing, digital and enterprise security, remote access and management, system, network and data management for technology companies worldwide. Low-level development for all platforms (desktop and mobile), driver development, reverse engineering, advanced C++ development, developers SDKs and toolkits to accelerate solution development in its focus areas, namely, Sound Capture SDK, Secure File Access SDK, etc.	HQ: Dnipropetrovsk +Kyiv, Zaporizhia	Hungary

Sources: Official company information, Local expert, Media, Best estimate

MAIN IT SERVICE COMPANIES BASED IN
DNIPROPETROVSK AND CENTRAL UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
	180	Software engineering for start-ups and enterprises in healthcare, education, and social media areas	HQ: Dnipropetrovsk	
	200	Mobile content production for pharma companies. Services include: web, Salesforce, mobile and cross-platform development, enterprise mobility solutions. Top clients include Strato, Abbott, GARAIOLabs, LISS, Novartis	HQ: Zhytomyr, +Kyiv	Estonia
	112	Design and development of integrated web, mobile and gaming solutions as well as such products as Presentain and TestNest	HQ: Cherkasy	Global HQ: USA, Netherlands, Canada
	112	Enterprise application development, web application development, mobile application development	HQ: Cherkasy	
	90	Web, iOS and Android development	HQ: Kirovohrad	USA
	100	Database development and optimization; web programming and quality testing; mobile application development and design and other services, Magento development	HQ: Cherkasy	USA
	90	Full-cycle web and mobile development	HQ: Dnipropetrovsk	Spain, Belarus
Yalantis	80	Full cycle mobile & web apps development for iOS, Android, Web	HQ: Dnipropetrovsk	
	80	Enterprise solutions, web and mobile development, VoIP solutions, UX/UI design, testing and QA, marketing services	HQ: Chernihiv +Kyiv, Sumy	
Custom Personal Computer Software	80	Development of B2B and B2C applications for web and desktop: high load applications, Big Data processing, mobile app development. Clients: major corporations, government institutions, other clients.	HQ: Sumy +Kharkiv	Czech Republic
	80	Full-stack B2B B2C multichannel e-commerce solutions	Dnipropetrovsk	Global HQ: Germany, USA

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN DNIPROPETROVSK AND CENTRAL UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Cleveroad www.cleveroad.com	75	Mobile and web development company providing services for business segments, startups and private clients.	HQ: Dnipropetrovsk +Kharkiv	
Ardas www.ardas.ua	60	Web and mobile development for communication, mathematical statistics economics and finances, physics public health and medical fields	HQ: Dnipropetrovsk	
Spilna Sprava www.sprava.net	60	Software development, IT support, mobile development, cloud, technologies	HQ: Vinnitsa	
Ekreative www.ekreative.com	50	Web, mobile, SAS, dedicated agile teams	HQ: Cherkasy	
Black Wing Foundtion www.bwf-game.com	50	Independent video game development and producer studio, original and licensed titles for consoles, PC, and mobile platforms.	HQ: Dnipropetrovsk	
Global Project Ukraine www.global-project.com.ua	50	Web and mobile development	HQ: Dnipropetrovsk	
WorkRocks www.workrocks.com	50	Digital marketing, design, 3D and animation, custom development development	HQ: Dnipropetrovsk	
Biruza Software www.biruza.com	50	Business process analysis, prototyping, UI design, architecture design, deployment, testing and other services	HQ: Poltava	Georgia
MLS Dev www.mlsdev.com	46	Mobile and web apps for entrepreneurs and startups	HQ: Vinnytsia	USA, Poland
Steelkiwi.com www.steelkiwi.com	45	Web and mobile development solutions for all types of businesses, including startups	HQ: Vinnitsa +Odessa	Israel
AMCON SOFT www.amconsoft.com	40	Web and mobile applications development, design and game creation	HQ: Dnipropetrovsk	USA, UK, Germany

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES BASED IN DNIPROPETROVSK AND CENTRAL UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Andersen www.andersenlab.com	40	Testing, application development, IC. More than 200 employees globally.	Cherkasy, Kharkiv	HQ: Belarus
111 Minutes www.111minutes.com	35	Web and mobile development, design. Top clients: Checkpoint Systems, FoxSpring Labs, Pangeam, Red Bull, Scholastic Corporation	HQ: Dnipropetrovsk	USA
RubyGarage www.rubygarage.org	30	Ruby, Ruby on Rails, cloud computing, mobile development, application design	HQ: Dnipropetrovsk	
INP-Software www.inp-software.com	30	Development outsourcing services for any type of business on .Net, Java, PHP, Flash, Flex, C/C++, Android, Delphi and other languages	HQ: Zhytomyr	
Techery www.techery.io	30	Web and mobile applications	HQ: Dnipropetrovsk	
Mev.com www.mev.com	30	Complex web and mobile software development, data analysis and visualization tools	HQ: Cherkasy +Lviv	USA
ActiveBridge www.active-bridge.com	28	Ruby on Rails developer	HQ: Cherkasy	
Rezonans www.rezonans.net	25	Web and mobile application development, consulting	HQ: Sumy	
V-Jet www.v-jet.net	25	QA, games, CMS and e-commerce, personal solutions, support, social and media, SEM, mobile solutions	HQ: Dnipropetrovsk	
KTTSoft www.kttsoft.com	25	Web and mobile, SEO	HQ: Dnipropetrovsk	
WOXApp www.woxapp.com	20	Mobile App development	HQ: Dnipropetrovsk + Kyiv	Russia
WebiNerds www.webinerds.com	20	Full service web development	Dnipropetrovsk	HQ: USA
Mobindustry www.mobindustry.com	20	Software design, web and mobile development, product support, performance analysis	HQ: Dnipropetrovsk	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN DNIPROPETROVSK AND CENTRAL UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
CayugaSoft www.cayugasoft.com	<20	A software development company that works with entrepreneurial companies and medium-sized businesses	Dnipropetrovsk	HQ: USA
Mozi Development www.mozidev.com	<20	Web-services, SaaS, Mobile APIs using Ruby on Rails, Sinatra, CSS3, HTML5, js, jQuery	HQ: Cherkasy	
QA Madness www.qamadness.com	<20	Full testing services including functional, configurational, load, visual, acceptance and mobile	Cherkasy	HQ: Lithuania
EverLabs www.everlabs.com	<20	Web and mobile software development	HQ: Cherkasy	
Fireblink www.fireblink.com	<20	Web application development for desktop and mobile, self-hosted and cloud platforms, native and hybrid mobile applications for iOS and Android, enterprise and 2D game development and other services.	HQ: Cherkasy	
SoftUkraine www.soft-ukraine.com	<20	Software development, architecture, testing and web-design services	HQ: Dnipropetrovsk	
Trinity www.trinity.ck.ua	<20	Web design and web development	HQ: Cherkasy	
SiteDevel www.sitedevel.com	<20	Web and mobile development in user-centered real time apps, cloud computing, high-load services, big data, enterprise automation, machine learning, Internet of things, Arduino and microcontroller technologies	HQ: Cherkasy	
Dglance www.dglance.com	<20	Mobile development, web development and web support	HQ: Cherkasy	
4K-Soft www.4k.com.ua	<20	Custom software development and outsourcing (PC, web and mobile) + software publishing activity (fullstack management system for banks, docflow system for enterprises.	HQ: Zhytomyr	Sales office in San Francisco
LMS www.lms-pro.com	<20	Web and mobile development	HQ: Sumy	Czech Rep., Luxembourg
Giant Leap Lab www.giantleaplab.com	<20	Web development, e-commerce platforms, advanced web-based solutions (ERP, CRM), mobile applications, 3D and 2D modeling, and animation	HQ: Sumy	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN DNIPROPETROVSK AND CENTRAL UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Reaktivatе www.reaktivatе.com	<20	Web design and web development	HQ: Cherkasy	
Webquali www.webquali.com	<20	Web development with core specializations in web development are Drupal and Drupal outsourcing services, Symfony and Ruby.	HQ: Cherkasy	
Visual Craft www.visual-craft.com	<20	Web and mobile development, design	HQ: Cherkasy	
ForForce www.forforce.com	<20	Full range of digital services	HQ: Dnipropetrovsk	
TechWire www.techwire-ua.com	<20	Mobile and Web development	HQ: Dnipropetrovsk	USA, UK
Kultprosvet www.kultprosvet.net	<20	Web services	HQ: Dnipropetrovsk	
3A www.3a.com.ua	<20	Web design and web development	HQ: Dnipropetrovsk	
Flyaps www.flyaps.com	<20	We develop software for startups and SMEs	HQ: Dnipropetrovsk	
Go interactive! www.gointeractive.co	<20	Web and mobile development, support	HQ: Dnipropetrovsk Kyiv	
A2A www.a2a.co	<20	Data integration services and custom solutions for medium-size enterprises	HQ: Dnipropetrovsk	
Flike www.flike.com.ua	<20	Web, desktop and mobile devices	HQ: Dnipropetrovsk	
Fifth Dimension Company www.fd.com.ua	<20	Game developer	HQ: Dnipropetrovsk	
Arpaso www.arpaso.com	<20	Python and web development	HQ: Dnipropetrovsk	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

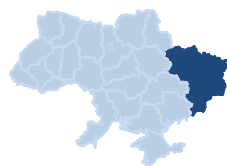
MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN DNIPROPETROVSK AND CENTRAL UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
SoftLabz Inc www.softlabz.com	<20	Web, database and computer software development consulting services	Dnipropetrovsk	HQ: USA
Devign Commerce www.devigncommerce.com	<20	Magento e-commerce solutions	HQ: Dnipropetrovsk	
Codevog www.codevog.com	<20	Web and mobile, design, IT consulting	HQ: Zhytomyr	
AlphaWebGroup www.alphawebgroup.com		Web development with core specializations in Drupal, Symfony and Ruby		
Pixelgrow www.pixelgrow.com	<20	Web and mobile development, design, UX and wireframing	Cherkasy	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

LARGEST IT SERVICE COMPANIES WITH A PRESENCE
IN DNIPROPETROVSK AND CENTRAL UKRAINE









			
Vinnytsia, Dnipropetrovsk	Dnipropetrovsk	Dnipropetrovsk	Vinnytsia, Dnipropetrovsk
			
Kremenchuk	Dnipropetrovsk	Cherkasy	Vinnytsia, Zhytomyr, Chernihiv
			
Cherkasy	Zhytomyr	Dnipropetrovsk	Vinnytsia
			
Kremenchuk	Zhytomyr, Chernihiv	Dnipropetrovsk	
			
Kirovohrad	Zhytomyr	Sumy	
			
Vinnytsia	Poltava, Cherkasy, Kryvyi Rih	Dnipropetrovsk, Kryvyi Rih	



Kharkiv & Eastern Ukraine












Main IT Service Companies

Note: In these tables, companies are listed according to the location of their headquarters. For example, SoftServe, a sizeable player with headquarters in Lviv and an office in Kyiv, is listed in the Lviv section.

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
	1,500	Web, mobile, QA, IT consulting and support, Internet marketing	HQ: Kharkiv	
	580	Software product development and support, custom software development including mobile development, IT consulting.	HQ: Kharkiv + Lviv, Odessa, Kyiv	Poland, USA
	250	Web (Drupal, Symfony, Magento, Python etc.), mobile (Android, iOS, Windows Phone, PhoneGap), Java, .Net, software testing and QA services	HQ: Kharkiv	USA, Switzerland
	250	Custom application development, QA and testing	HQ: Kharkiv + Lviv	Global HQ: USA + Poland, Colombia
	215	Custom software development (.NET, Python, C++, Java, PHP, RoR), CMS, web and mobile applications (iOS, Android, PhoneGap); QA, BA, IT services, email templates, web research.	HQ: Kharkiv	USA
	200	Mobile applications, design, QA, web development	HQ: Kharkiv +Chernivtsi, Mariupol, Nikolayev,	
	175	Websites creation and support, web design, ecommerce solutions and IT consulting	HQ: Kharkiv	
	170	Marketing, energy, logistics, media, automotive, telecommunication, retail, e-commerce and other	HQ: Kharkiv	Belarus, USA

Sources: Official company information, Local expert, Media, Best estimate

MAIN IT SERVICE COMPANIES BASED
IN KHARKIV AND EASTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
 Zfort Group	170	Web, mobile, B2B solutions	HQ: Kharkiv	UK, Germany, USA
 ITCRAFT	160	Web and mobile application technologies	HQ: Kharkiv	
 altexsoft software r&d engineering	150	R&D in custom engineering, data science, UX/UI and technology consulting for financial, healthcare, e-commerce, media, marketing, travel, and transportation industries	HQ: Kharkiv +Kremenchug, Lviv	USA
 Exadel®	150	R&D in mobility, application development, enterprise security and other	Kharkiv Vinnytsia, Mariupol	HQ: USA +Belarus, Lithuania
 AGILE ENGINE	140	Java, .Net, Ruby, mobile development, testing	Kharkiv, Odessa	HQ: USA Argentina
 CHI CHI software	130	B2C and B2B web and mobile solutions, .NET, PHP, Cloud, Ruby on Rails, Java, Objective C, iOS, Android, WP technology stacks	HQ: Kharkiv	
 TRIOSTUDIO The World of Digital Artistry	130	On-demand solutions for telecommunication, healthcare, digital entertainment, finance and others	HQ: Kharkiv	
 Telesens GLOBAL SOLUTIONS	130	Billing systems, CRM solutions, corporate information systems, e-commerce solutions, enterprise application integration, IT BPO	Kharkiv	HQ: UK +Vietnam
 AKVELON	100	Mobility, enterprise software, big data, cloud solutions	Kharkiv	Global HQ: USA +Russia
 SYTOSS software • services • solutions	90	quality assurance, integration services, maintenance and support	HQ: Kharkiv	
 INTEGO GROUP	90	Dedicated development teams, enterprise software, data science, biostatistics	Kyiv Kharkiv	HQ: USA +Bulgaria
 TOA UKRAINE	90	Cloud-based field service management applications company, acquired by Oracle in 2014	Kharkiv	HQ: USA

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KHARKIV AND EASTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Program-Ace www.program-ace.com.ua	70	R&D in 3D, web and mobile	HQ: Kharkiv	USA
MWDN www.mwdn.com	70	Medical industry. R&D tasks, interfacing products with 3rd party systems through HL7, DICOM or proprietary interfaces, provision of additional 3rd party testing including automated and multiple OS/browser combination	HQ: Kharkiv	Israel, USA
DDI Development www.ddi-dev.com	65	Python/Django and PHP/Symfony technologies	HQ: Kharkiv, +Kremenchuk	
CodeTiburon www.codetiburon.com	40	Custom web development, e-commerce, mobile, user experience design, requirements engineering, R&D services	HQ: Kharkiv	
SSA Group www.ssa-outsourcing.com	50	Web, mobile, database and cloud technologies	HQ: Kharkiv	Netherlands, USA
Eastern Peak Software www.easternpeak.com	60	Development of web, mobile and desktop applications, creative design, software testing and digital marketing	Kharkiv	HQ: USA
Acceptic www.acceptic.com	60	Dedicated development teams	HQ: Kharkiv	
Qualium Systems Ltd www.qualium-systems.com	60	Web development, social media applications, flash & flex development, desktop & server solutions, mobile development	HQ: Kharkiv	Germany
CodeIT www.codeit.com.ua	50	R&D, full-cycle software development (web + mobile), cloud staffing, business analysis, manual and automated QA. Niche expertise in Big Data mining and processing, e-commerce, e-learning, healthcare, media, social and dating, games development, UI/UX.	HQ: Kharkiv	
INSART www.insart.com	50	Enterprise software development based on expertise in Java EE, JavaScript, Cloud, SQL & NoSQL databases, Big Data & data science, mobile client apps and the related technologies.	HQ: Kharkiv +Kyiv	USA
WEB4PRO www.web4pro.net	50	PHP, Magento, HTML5/CSS3, Drupal, Wordpress	HQ: Kharkiv	USA, Israel, Montenegro
IT Delight www.itdelight.com	50	E-commerce development, Magento, Wordpress, Yii framework	HQ: Kharkiv	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KHARKIV AND EASTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
X1 Group www.x1group.com	50	Dedicated development teams for startups	HQ: Kharkiv	
SweetSoft www.sweetsoft.com.ua	50	IT support, testing, turn-key solution development and business process outsourcing	HQ: Kharkiv	
UKAD Group www.ukad-group.com	50	Web and mobile development across industries	HQ: Kharkiv	Poland
Argus Soft www.argus-soft.net	50	Business analysis, project management, software development, testing, maintenance and support	HQ: Kharkiv	
Agilites www.agilites.com	45	Image development, e-commerce sites, B2B, B2C, B2E, social networking apps, cross-platform mobile apps	HQ: Kharkiv	
Videal www.videal.com	40	Big data mining and search, e-commerce and retail, finance, social networks, ERP systems, mass mailing, e-mail marketing, integration platforms, rewarding software apps	HQ: Kharkiv	USA
FulcrumWeb www.fulcrumweb.com.ua	40	Medical, ERP, e-documents	HQ: Kharkiv	
Injoit www.injoit.com	40	Professional IT consulting, majoring in iPhone apps and games	HQ: Kharkiv	
Insoft Ukraine (CM Latitude) www.cmlatitude.com	40	Cloud management systems, automation of the deployment process of enterprise applications into the cloud infrastructure	Kharkiv	HQ: USA
Rozdoun Ltd. www.rozdoun.com	35	Java, Atlassian product line, Liferay, Mobile apps development (iOS, Android), Web.	HQ: Kharkiv	Germany, USA
Riff Point www.riffpoint.com	35	Outstaffing and outsourcing for web and mobile developments; research and development, consulting, enterprise solutions.	HQ: Kharkiv	
Coderivium www.coderivium.com	30	Mobile app development company	Kharkiv	HQ: Germany +USA
Smart Academy www.academysmart.com.ua	30	E-learning products and LMS using Moodle, SCORM 1.2, SCORM 2004	HQ: Kharkiv	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KHARKIV AND EASTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Smithysoft www.smithysoft.com	30	Web design and development	HQ: Kharkiv	
Ainstainer Group www.ainstainer.com	26	Dedicated teams, web, mobile and software application development	Kharkiv	Germany, Sweden, Norway
TestFort (previously Bugs-Huntress) https://testfort.com/	24	Testing services including any type of manual and automated software testing, dedicated testing teams, QA and QC support	Kharkiv	HQ: Switzerland +USA, France, Malta
ABT Solutions www.abtsolutions.net	23	Software and web development	Kharkiv	HQ: UK
WDG www.wdg.com.ua	20	Web development services	HQ: Kharkiv	
Entenso www.entenso.com	22	Web, mobile development, security engineering, back-end design, product management	HQ: Kharkiv	
Smiss Ltd. www.smissltd.com	21	Complex information systems and e-commerce solutions, system administration	Kharkiv	HQ: Germany
AnvilEight www.anvileight.com	20	Web and mobile development services to businesses, startups and development companies	HQ: Kharkiv	
Tesseract Pro www.tesseractis.com	<20	Internet applications, scalable cloud solutions, Microsoft technology stack, mobile platforms, research and innovations, software quality assurance	HQ: Kharkiv	
Select Group www.selectgroup.com.ua	<20	Web and Mobile solutions, QA, SEO services	HQ: Kharkiv	
Codus Software www.codussoft.com	<20	Business automation, security, system integration with specialization in Windows based solutions, C, C#, .NET, MS SQL, Oracle	HQ: Kharkiv	USA

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KHARKIV AND EASTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
NexGenDesign www.nexgendesign.com	<20	Mobile, web, desktop, low-level R&D	HQ: Kharkiv	USA
Soft-Loft www.soft-loft.com	<20	Magento customization, outsourcing, development and speed optimization	HQ: Kharkiv	
StreamCrease www.streamcrease.com	<20	Development and testing	HQ: Kharkiv	
Prix www.prix-it.com	<20	Client-server applications, Stock&FOREX applications. Desktop and Mobile applications, SQL solutions and other	HQ: Kharkiv	
Digital Consulting Laboratory LLC www.dicslab.com	<20	Web development	HQ: Kharkiv	
SROST Studio www.srost-studio.com	<20	IOS and Android app development	HQ: Kharkiv	
Fortifier	<20	Big data solutions, Java, J2EE, Spring, Hibernate	HQ: Kharkiv	
Tsygichko Group www.tsygichkogroup.com	<20	Web development, design and branding	HQ: Kharkiv	
Micro-B	<20	iOS development studio	HQ: Kharkiv	
ErgoServ www.ergoserv.com	<20	Web and Mobile development, project management, testing	HQ: Kharkiv	
Wamisoftware Wamisoftware.com	<20	Web and mobile development and design	HQ: Kharkiv	
i-ween www.i-ween.com	<20	Web development	HQ: Kharkiv	
ideainTech www.ideantech.com	<20	Web and mobile development	HQ: Kharkiv	
SoftRP www.softrp.net	<20	Custom software development, websites creation and support, web design, ecommerce solutions and IT consulting	HQ: Kharkiv	Germany

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

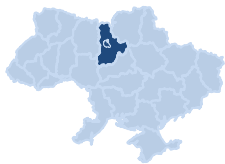
MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KHARKIV AND EASTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
App2World www.app2world.com	<20	UI/UX for mobile apps	HQ: Kharkiv	
Antagosoft www.antagosoft.com	<20	Web development	HQ: Kharkiv	
Artjocker www.artjocker.ua	<20	Web development	HQ: Kharkiv	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

LARGEST IT SERVICE COMPANIES WITH A
PRESENCE IN KHARKIV AND EASTERN UKRAINE





			
Kharkiv	Kharkiv	Kharkiv	Kharkiv
			
Kharkiv	Kharkiv	Kharkiv	Kharkiv
			
Kharkiv	Kharkiv	Kharkiv	Kharkiv
			
Kharkiv	Kharkiv	Mariupol	Kharkiv



KYIV & THE KYIV REGION

MAIN IT SERVICE COMPANIES

Note: In these tables, companies are listed according to the location of their headquarters. For example, SoftServe, a sizeable player with headquarters in Lviv and an office in Kyiv, is listed in the Lviv section.

Company	Nb. of engineers in Ukraine	Software development specialization	Presence in Ukraine	Global locations
	3,900	Emerging verticals, life sciences and healthcare, media and entertainment, retail and distribution, software and hi-tech, travel and hospitality, financial services.	Kyiv Dnipropetrovsk, Lviv, Kharkiv, Vinnytsia	HQ: USA + Armenia, Australia, Austria, Belarus, Bulgaria, Canada, China, Czech Republic, Germany, Hong Kong, Hungary, India, Ireland, Kazakhstan, Malaysia, Mexico, Netherlands, Poland, Russia, Singapore, Sweden, Switzerland, UK.
	3,727	Financial services, travel and aviation, technology, telecom, automotive & transport, energy industries	Kyiv Dnipropetrovsk, Odessa	HQ: Switzerland, +Australia, Bulgaria, Canada, Germany, Mexico, Poland, Romania, Russia, Singapore, South Africa, UK, USA, Vietnam
GlobalLogic	2,561	High-tech, medical, communications, media. The company was acquired by Apax Partners in 2013	Kyiv Kharkiv, Lviv, Mykolayiv	HQ: USA +Argentina, Chile, Germany, India, Israel, Poland, Slovakia, UK
 CIKLUM	2,291	Financial, media, entertainment, travel	HQ: Kyiv +Vinnytsia, Dnipropetrovsk, Lviv, Kharkiv, Odessa	Belarus, Denmark, Israel, Pakistan, Poland, Romania, Spain, Switzerland, UK, USA,
	1,300	Software development & testing, Microsoft/SAP consulting, IT/network operations, cyber security, application packaging & virtualization, telecom operations, BPO. Industries: software, banking & finance, telecom, FMCG, media, automotive. Part of Nordic IT Group EVRY (Apax Partners).	HQ: Kyiv +Zhytomyr, Vinnytsia, Chernihiv, Kharkiv	Bulgaria, France, Germany, Israel, Latvia, Norway, Spain, Sweden

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MAIN IT SERVICE COMPANIES BASED IN KYIV AND THE KYIV REGION

Company	Nb. of engineers in Ukraine	Software development specialization	Presence in Ukraine	Global locations
	809	High complexity system implementation and support, IT initiative implementation, IT optimization, cyber security, cloud technologies, big data and analytics. Top clients: British-American Tobacco, Finca International, Genesys, Lindorff, Kyivstar	HQ: Kyiv +Kharkiv, Odessa, Vinnytsia	HQ: Sweden and USA +Israel, Poland, Slovakia, Switzerland, UK
	719	Financial, healthcare, Internet of things, media, travel	Kyiv, Kharkiv, Kherson, Dnipropetrovsk, Odessa, Lviv	HQ: USA+UK, Switzerland, Argentina, Russia, Poland, Germany
	590	Web, mobile, cloud and others	Kyiv, Odessa, Lviv	HQ: US (Silicon Valley)
	500	Game development. Before joining forces with Wargaming, Persha Studio used to outsource projects for Western game development companies.	HQ: Kyiv	
	550	Promotion and implementation of software, complex enterprise automation in CIS market	HQ: Kyiv	
	532	Audio processing, IPTV, financial, e-commerce, big data, mobile and others	HQ: Kyiv	
	500	Turnkey solutions, system design, mobile applications for financial, real estate, entertainment and others	HQ: Kyiv	USA
	400	Mobile, web, testing	HQ: Kyiv	
	350	A major e-commerce outsourcing company and systems integrator, Astound has its headquarters in the US but most of its employees are in Ukraine. Previously known as SysIQ, Astound started in 2007. Recently it opened an office in Slovakia where some Ukrainian engineers were relocated. Clients: Adidas, Versace, Hugo Boss, etc.	Kyiv, Vinnytsia, Chernihiv, Uzhgorod	HQ: USA + Germany, Slovakia
	350	Web, mobile, cloud	HQ: Kyiv	USA Germany, Denmark, Poland

Sources: Official company information, Local expert, Media, Best estimate

MAIN IT SERVICE COMPANIES BASED IN KYIV AND THE KYIV REGION

Company	Nb. of engineers in Ukraine	Software development specialization	Presence in Ukraine	Global locations
	300	Custom software development, web design, Internet of things, Big Data and datamining	Cherkasy, Chernivtsi, Kharkiv, Kyiv, Lviv	HQ: USA +Germany, Montenegro
	300	Game development, game co-production, art production, game porting. Top 5 Clients* - Electronic Arts, Rovio, Ubisoft, Storm8, Dena	HQ: Kyiv + Dnipropetrovsk, Kharkiv, Kryvyi Rih, Odessa	HQ: Germany
	300	Game development	HQ:Kyiv +Odessa	Russia, Malta, Cyprus
	250	Business technology advisory, software development, quality control and testing services	HQ: Kyiv +Mykolayiv	USA, UK, Israel
	250	Software development, BPO, geospatial services	HQ: Kyiv +Kharkiv	HQ: USA + Belarus
	200	R&D in Internet of things, mobility and big data, consumer electronics, web	HQ: Kyiv	USA
	200	Finance, insurance, banking, ecology, corporate management, government, consumers industries. A member of international consortium Intecracy Group.	HQ: Kyiv +Kharkiv, Zhytomyr, Rivne	Switzerland, USA, Sweden
	180+	Mobile iOS and Android development	HQ: Kyiv	
	180	Web developing, QA testing, mobile applications, UX design	Kyiv, Lviv	Global HQ: UK
	150	Mobile and wireless, telecom, business automation, logistics, insurance, healthcare banking and finance, other	HQ: Kyiv +Rivne, Lviv	

Sources: Official company information, Local expert, Media, Best estimate

MAIN IT SERVICE COMPANIES BASED IN KYIV AND THE KYIV REGION

Company	Nb. of engineers in Ukraine	Software development specialization	Presence in Ukraine	Global locations
 QATestLab quality is a rule	150	Testing company offering a full range of testing services	HQ: Kyiv +Zaporizhia, Kryvyi Rih, Poltava, Rivne, Cherkasy	USA, Cyprus
 BMS consulting	150	Complex IT solutions in the fields of security, system integration, cloud solutions, monitoring. Among clients are top Ukrainian and international banks and mobile operators	HQ: Kyiv	
 DAXX GREAT IT PEOPLE	150	Dedicated development teams, international recruitment and relocation of developers, dedicated engineering teams (mechanical engineers, drafters), agile consultancy.	HQ: Kyiv + Dnipropetrovsk, Kharkiv, Ternopil	Netherlands, USA, UK
 polyteco	150	A team of graduates, post-graduates and professors of 'Kyiv Polytechnic Institute' specializing in biomedical engineering, aerospace, automotive, financial services, energy, ISV, manufacturing, media, others	HQ: Kyiv	
 Levi SERVICE	150	Software and web development services in the fields of transport, retail, marketing, and others.	Kyiv	HQ: Netherlands +Serbia, Romania
 itera MAKE A DIFFERENCE	130	System integration, IT solutions and services	HQ: Kyiv	16 European countries
 s&t	125	Full cycle software development	Kyiv	HQ: Norway +Sweden Denmark, Slovakia

Sources: Official company information, Local expert, Media, Best estimate

MAIN IT SERVICE COMPANIES BASED IN KYIV AND THE KYIV REGION

Company	Nb. of engineers in Ukraine	Software development specialization	Presence in Ukraine	Global locations
AM-SOFT	120	Android applications, desktop application, web applications, databases	HQ: Kyiv	
 VERNA YOUR IT TEAM	100+	System integration, managed IT services, customer support (1 st and 2 nd lines), architecture design, infrastructure optimization, design and installation of structured cable systems, CCTV, networks and telecommunications, data processing centers, and other.	HQ: Kyiv	
 SERENA	100	Application lifecycle management (ALM) vendor, development operations. Top 5 clients: UBS Financial Services Inc, Credit Suisse, eBay, Lockheed Martin, Generali, US Government	Kyiv	HQ: USA +UK, Germany, Norway, Spain, France, Italy, Switzerland, Singapore, India, Japan, Korea
 adyax Open Source Experts	100	Enterprise class sites for global brands and institutions	Kyiv Lviv, Kharkiv, Zhytomyr, Lutsk, Rivne, Chernihiv	HQ: France +Russia, Moldova, Romania, Serbia
 Codeminders	100	Big data, mobile & Internet of Things, and web development	Kyiv	HQ: USA
 DEVELOPEX DEVELOPMENT EXCELLENCE	100	Web, dedicated development teams, custom software and others	HQ: Kyiv	USA
 Qoderoom	100	Web, mobile, backend, cloud	HQ: Kyiv +Kirovohrad, Kamenets-Podolsky	Estonia, UK, Austria
 priocom	100	A Ukrainian system integrator that provides cloud, infrastructure solutions and has silver CISCO partnership	HQ: Kyiv	
 БМC СЕРВИС	100	Financial, government, manufacturing, sports, telecommunication and others	HQ: Kyiv	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MAIN IT SERVICE COMPANIES BASED IN KYIV AND THE KYIV REGION

Company	Nb. of engineers in Ukraine	Software development specialization	Presence in Ukraine	Global locations
	120	Full service ecommerce agency: strategy, creative & UX, web & mobile development, systems integration & support. Enterprise-level platforms: Demandware, Magento, hybris. B2C & B2B verticals serviced for global brands in fashion, clothing, sporting goods, consumer goods, medical, electronics and service industries.	HQ: Kyiv + Chernihiv, Dnipropetrovsk	HQ: USA +Germany, Poland, Lithuania
	100	Software development in finance and banking, telecommunications, e-learning and media, retail and e-commerce, transport, healthcare, power supply	HQ: Kyiv + Chernihiv	USA
	90	Telecom, finance, e-commerce, and web 2.0	Kyiv, Kharkiv, Zhytomyr	HQ: Israel +Russia, Belarus, Germany, USA
	90	Financial, energy, telecom and Internet industries. Developed inTouch product, a high-performance Web 2.0 intranet solution based on Liferay Social Office	Kyiv, Mykolayiv	HQ: Germany +Bulgaria
	80	Augmented reality, data management, travel, e-commerce	Kyiv, Vinnytsia	HQ: USA +India
	80	Consulting on building from scratch, improving the IT-infrastructure, software platforms and their implementation	HQ: Kyiv	
	80	Banking, insurance, energy and utilities, telecommunications, manufacturing, trade, government industries	Kyiv, Ternopil	HQ: Czech Republic +Slovakia, Netherlands

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KYIV AND THE KYIV REGION

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Intercomputer GS www.intercomputer-gs.com	75	System integration, teams creation and testing services	HQ: Kyiv	Germany
KSF Technologies www.ksftech.com	70	Application development and QA	Kyiv	HQ: Switzerland
Marka Software www.marka-software.com	70	Dedicated development teams, web and app development (WPF, asp.net, C#, HTML5)	HQ: Kyiv +Zaporizhia	
Smile Ukraine www.smile-ukraine.com	60	E-commerce, web and mobile, smart TV, CRM others	Kyiv	HQ: France +Côte-d'Ivoire Morocco, Netherlands, Spain, Switzerland,
Miritec www.miritec.com	60	IT consulting and support, marketing, security audit and others	HQ: Kyiv	
Bancomzvjazok www.bkc.com.ua	60	System integration, IT solutions for banking, border control, energy, GIS.	HQ: Kyiv	
Digicode Ltd www.digicode.net	55	Mobile platforms incl. iOS, Android and Windows Phone, web applications, server platform technologies	HQ: Kyiv	
JBS www.jbs.com.ua	55	Full life cycle BSS solutions development for telecommunications market players, like mobile and fixed-line operators, MNVOs, BSS products vendors, system integrators, OTT services providers, Internet and cable/satellite TV providers, etc.	HQ: Kyiv +Zhytomyr, Chernihiv	
Edsson Software www.edsson.com	55	Software engineering, graphic design, user interface development and technical implementation	Kyiv	HQ: Netherlands
MindK www.mindk.com	54	CRM, membership / association management systems,B2B solutions, PHP & JavaScript (single page applications)	HQ: Sumy, Kyiv	
ProFIX www.profix.kiev.ua	>50	Banking and financial technologies, incl. SWIFT connectivity and services, money transfer solutions, system integration, core banking systems	HQ: Kyiv+ Keremenchuk	

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KYIV AND THE KYIV REGION

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Optimum Web www.optimum-web.com	50	Healthcare, retail, finance, tourism, e-commerce, e-trainings, fashion, logistics, construction, social networking, B2B applications, cloud apps, Big Data, systems integration	HQ: Kyiv	
2k-Group www.2kgroup.com	50	Mobile application and Remote Development Center (RDC) services	HQ: Kyiv	
Grossum www.grossum.com	45	E-commerce, e-health. Web and mobile services	HQ: Kyiv	HQ: Lithuania
Zeus Electronics www.zeuselectronics.eu	40	Digital publishing, multimedia codecs, GIS, social network development	HQ: Kyiv	
IDAP Group www.idapgroup.com	40	iOS, Android and DSP development	HQ: Kyiv	
SECL Group www.secl.com.ua	40	Web design, development, marketing strategy, copywriting and consulting	HQ: Kyiv +Lviv	USA, Russia
Django Stars www.djangostars.com	35	E-commerce, social, banking, finance, mobile, real estate, travel, transportation, real-time, cloud, mobile, high load	HQ: Kyiv	
Innoware www.innoware.ua	30	Implementation and maintenance of ERP systems	HQ: Kyiv	Russia
Vimas Technologies www.vimas.com	30	Application development, digital processing algorithms, video and audio transmission, software outsourcing	HQ: Kyiv	
Softelegance www.softelegance.com	30	Custom development in .Net Framework	Kyiv	HQ: UK USA
Basic group www.basicgroup.ua	30	Telecommunication, science industries, IT consulting, advertising services	HQ: Kyiv	
Evry www.evry.com	30	Complete mobile solutions	Kyiv	HQ: Norway +Denmark, India, Finland, Sweden, UK
Octetis www.octetis.com	25	Application maintenance, quality assurance, documentation	HQ: Kyiv +Kharkiv, Sevastopol	France
Kit XXI www.kit-xxi.com.ua	25	ERP, navigation	HQ: Kyiv	
Linecore www.linecore.com	21	Web, mobile, graphic design, outstaffing, dedicated development teams	HQ: Kyiv	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KYIV AND THE KYIV REGION

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
DOIT Software www.doitua.com	20	E-commerce	HQ: Kyiv	
Helios Technologies www.heliostech.fr	20	High-tech solutions for funded startups	Kyiv	HQ: France +Hong Kong
HamsterCoders www.hamstercoders.com	20	Developments for a variety of industries	HQ: Kyiv	
FiduciaSoft www.fiduciasoft.com	20	ERP, WMS, CRM, e-commerce, mobile applications	HQ: Kyiv	
Altima Web Systems www.ultima.com.ua	20	Web development	HQ: Kyiv	
Rademade www.rademade.com	20	Online marketplaces, information portals, SaaS projects, e-commerce, Trading platforms, social networks.	HQ: Kyiv	USA, Azerbaijan
Webbylab www.webbylab.com	20	Databases, cloud computing, scalability, web apps	HQ: Kyiv	
Stanfy www.stanfy.com	<20	App design and development. Specialization in software solutions for mobile, wearable devices and connected electronics (IoT)	Kyiv	HQ: USA
The App Solutions www.theappsolutions.com	<20	Business analysis, design, development and support of iOS and Android mobile applications	Kyiv	HQ: USA
Right&Above www.rightandabove.com	<20	Enterprise and web, mobile and embedded systems	Kyiv, Sevastopol, Simferopol	HQ: USA +Russia
Augmentive www.augmentive.com	<20	Software localization services	Kyiv	HQ: USA +Belarus
IRST www.irst-ukraine.com	<20	Web and mobile development, desktop solutions	HQ: Kyiv	
IT Vik www.itvik.com	<20	MS SQL database, business analysis tools, software, mobile (Android, iOS)	HQ: Kyiv	
Logic IT Solutions	<20	Ruby on Rails	Kyiv	HQ: USA
innomos International www.innomos.com	<20	Mobile enterprise solutions	Kyiv	HQ: Germany
Softevol www.softevol.com	<20	Mobile and web development	HQ: Kyiv	
Cyberian Soft www.cyberiansoft.com	<20	Software consulting services	Kyiv	HQ: USA

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KYIV AND THE KYIV REGION

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
CyberSystematics www.cybersystematics.com	<20	IT consulting, management, support and development	HQ: Kyiv	
eGo Creative www.ego-cms.com	<20	I&UX design, mobile, web and open source, project management, support, QA, testing, Xamarin	HQ: Kyiv + Dnipropetrovsk	Russia
Inavante www.inavante.com	<20	API Management, open source solutions, web and e-commerce, cloud integration	Kyiv	HQ: USA +Russia
Matrix Software www.matrix-soft.com	<20	Mobile apps development	HQ: Kyiv	
oberig.com www.oberig.com	<20	Web and software projects on various PC and mobile platforms	Kyiv	HQ: Slovenia
Silenca Tech www.silencatech.com	<20	Java, PHP, CRM/ERP, business support systems, managerial accounting development	HQ: Kyiv	
Virtuace Inc www.virtuace.com	<20	Development of enterprise-scale software systems	HQ: Kyiv +Kharkiv, Zhytomyr, Rivne	USA
Yedynka DCTL www.yedynkadigital.com	<20	Digital consulting, web design, content management, web development services	HQ: Kyiv	
InVooDoo www.invoodoo.com	<20	UX/UI, iOS/Android, web front-end and back-end	HQ: Kyiv	USA
Mobile labs www.mobile-ua.com	<20	Mobile applications	HQ: Kyiv	
NAZAX www.nazax.com	<20	Web and e-commerce, full-cycle application development, establishing offshore development center consulting	HQ: Kyiv	
7 Web Pages www.7webpages.com	<20	Travel, payment systems, startups	HQ: Kyiv	
A La Carte www.aladevelop.com	<20	Website development, team outstaffing, website maintenance, consulting	HQ: Kyiv	
d-studio www.dstudiosoft.com	<20	iOS and OS X platforms	HQ: Kyiv	
IntellectSoft www.intellectsoft.net	<20	Custom software and mobile application development. More than 100 globally.	Kyiv	HQ: USA +Norway, Belarus

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KYIV AND THE KYIV REGION

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Global Spade www.globalspade.com	<20	Multi platform development - .NET and Java technologies, server and mobile development (iOS and Android), graphics design center	Kyiv	HQ: USA +Switzerland, Germany, UK
GSA Soft www.softgsa.com	<20	Independent quality assurance, IT consulting and IT infrastructure support.	HQ: Kyiv	
MMI Group www.mmigroup-it.com	<20	IT Solutions for business and government	HQ: Kyiv	
Proband www.beproband.net	<20	Web applications, e-commerce, design, marketing strategy and digital promotion services	HQ: Kyiv +Sumy	

Sources: Official company information, Local expert, Media, Best estimate

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MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN KYIV AND THE KYIV REGION

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
NetFix www.netfixllc.org	<20	Web-design and development turn-key service	HQ: Kyiv	
Desna Systems www.desnasystems.com	<20	Measurement processing, visualization, semiconductor industry, device modeling and parameter extraction	HQ: Kyiv	USA
Outsource Partner Studio www.tenkol-design.com	<20	Web development, design, marketing strategy services	HQ: Kyiv	USA
PrivateDev mkaminskaya82@gmail.com	<20	Custom software development	HQ: Kyiv	
Trust Sourcing www.trustsourcing.com	<20	Design, agile development, testing, QA lab	HQ: Kyiv	
Altsolution www.altsolution.ua	<20	E-commerce	HQ: Kyiv	
Safaran www.safaran.ooo	<20	Social network, CRM	HQ: Kyiv	
IT4U www.it4u.ua	<10	Web development, marketing, consulting	HQ: Kyiv	
All Stars Ukraine www.allstars-it.com	<10	Web, mobile, R&D	HQ: Kyiv	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

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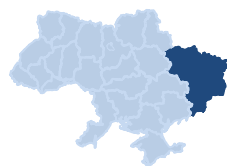


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LVIV & WESTERN UKRAINE











MAIN IT SERVICE COMPANIES

Note: In these tables, companies are listed according to the location of their headquarters. For example, SoftServe, a sizeable player with headquarters in Lviv and an office in Kyiv, is listed in the Lviv section.

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
	3,200	Digital health, IoT, security, big data, quality assurance, UX design, data science, devops, software architecture	HQ: Lviv +Dnipropetrovsk (400), Ivano-Frankivsk, Kyiv, Lviv, Rivne, Kharkiv, Chernivtsi	HQ: USA +UK, Germany, Netherlands, Poland, Bulgaria, Russia
	946	Web and mobile, QA, R&D in mobility, wearable devices and predictive analytics	HQ: Lviv +Ivano-Frankivsk, Kremenchuk, Ternopil	UK, USA, Poland
 <small>Intelligent Nearshore Outsourcing</small>	350	R&D, dedicated teams, software consulting for enterprises and startups	HQ: Lviv +Kyiv	Germany, Poland, Switzerland
	285	Software products development, dedicated development centers, mobile development, OpenText professional services, game development.	HQ: Lviv +Kyiv	Sweden
	250	Intellectual property management and consumer real-estate	HQ: Lviv	Global HQ: NYC, USA
	250	JAVA, .NET, SAS, business intelligence	HQ: Lviv	Global HQ: Denmark
	220	Cloud, web, mobile	HQ: Lviv	HQ: Netherlands + Poland, Macedonia
	175	Cloud & web, Big Data & analytics, mobile apps with UI/UX, connected systems, collaboration platforms. Top clients: Modul-System, Smiths Detection, SAP, RR Donneley, etc.	HQ: Lviv	Canada, Poland, USA
	135	Web development, design, software development, strategic consulting		Global HQ: USA + India, Bangladesh




Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MAIN IT SERVICE COMPANIES BASED
IN LVIV AND WESTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
 Perfectial	160	Software development, mobility, UX	HQ: Lviv	UK, USA
 Skelia Extending Your Enterprise	130	Microsoft, Java, PHP, embedded development, mobile, web, design, web CMS, QA and other	HQ: Lviv +Kyiv	Global HQ: Luxemburg +Poland, the U.S., the Netherlands, the U.K.
 ABTO software	120	Custom software solutions, IT consulting, business applications and web development	HQ: Lviv +Uzhgorod	USA, Poland, Canada, Italy, Germany
	117	Services for partners in the Silicon Valley in education, enterprise, social media and e-commerce	HQ: Lviv +Kyiv	
 Software Planet Group	109	TML5/JS/CSS, JavaScript frameworks for both front- and the back-end, Java EE and frameworks, Ruby on Rails and Python. IaaS and PaaS solutions and virtualisation. Special expertise in handling massive volumes of data of different types.	HQ: Lviv +Cherkasy	HQ: UK
 [bvblogic]	100	Web development, mobile app development, IT consulting, business process automation, Big Data, quality assurance, UX design	HQ: Ivano-Frankivsk +Ternopil, Sumy, Chernivtsi	Poland, USA, UK
	100	Software engineering and testing services in embedded systems, telecommunication and multimedia	HQ: Lviv	
 THINKMOBILES	100	Full cycle mobile & web applications development	HQ: Uzhgorod	
 internetdevels drupal development shop	90	Web, Drupal, Symfony, development	HQ: Lutsk +Lviv, Rivne	USA
	90	Engineering, web based services, financial applications, iphone/ipad applications	HQ: Ivano-Frankivsk	USA, Poland

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MAIN IT SERVICE COMPANIES BASED
IN LVIV AND WESTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
 complex logistics made simple	80	.NET, Java i PHP. Development	HQ: Lviv	Global HQ: Denmark
 we do IT together	80	Information Technology Management, IT outsourcing and IT support services.	HQ: Lviv	
	80	Application development, technology integration, consulting	HQ: Chernivtsi + Ivano-Frankivsk, Lviv	Global HQ: Canada +USA, Brazil, France, Germany, Italy, UK, Romania

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

INDUSTRY ANNOUNCEMENT



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MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN LVIV AND WESTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
TranSoftGroup www.tsg.com	75	IT support solutions provider offering IT services, telecoms and IT security	HQ: Mukachevo	Europe, Australia
FFW www.ffw.co	65	Digital agency employing more than 400 people across 11 countries, largest Drupal agency in the world	Lviv, Mykolayiv	HQ: USA, Worldwide
Sharp Minds www.sharpminds.com	60	.NET, PHP, Java, Objective-C, Android wear, and other languages	Chernivtsi	HQ: Netherlands
LEZGRO www.lezgro.com	60	Web & mobile development, search optimization, web concept and planning	HQ: Ivano-Frankivsk +Lviv	
Lemberg Solutions www.lemberg.co.ua	60	Technology provider for marketing and design agencies, start-ups, innovative businesses	Lviv	HQ: UK
Visco CG www.visco.no	60	3D visualisation, 3D rendering, computer based animation etc.	HQ: Lviv + Kharkiv	HQ: Norway
Vakoms www.vakoms.com	60	Cross-browser web sites, embedded applications for various platforms and operating systems and other services	HQ: Lviv	
Datamart www.dtm.io	50	Healthcare, automotive, big data, social and others	Lviv	HQ: USA
FreezePro www.freezeprosoftware.com	40	Web, desktop, and mobile applications	HQ: Lviv	
Binary Studio www.binary-studio.com	40	Full spectrum of IT software development services for both small, local businesses and large, international enterprises	Lviv, Uzhgorod	HQ: USA Slovakia
Intelliarts www.intelliarts.com	30	Big data, cloud/SaaS, mobile, digital publishing, XML/XSLT consulting.	HQ: Lviv	
Premmerce www.premmerce.com	30	Software development and technology consulting for e-commerce, maintenance and marketing services for online stores.	HQ: Lviv	Germany, USA
BASquare www.basquare.com	25	Web and mobile solutions with a focus on education and marketing, audio and media editing tools	HQ: Lviv	Poland
WEBXLOO www.webxloo.com	25	Web design and development, web and mobile applications	Lviv, Dnipropetrovsk, Zaporizhia	HQ: USA

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN LVIV AND WESTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
KindGeek www.kindgeek.com	30	R&D, data science, high load web, big data, machine learning, hardware, internet of things, smart house, embedded solutions, mobile, games, sound design	HQ: Lviv	
Optigra Software www.optigra-soft.com	30	Consulting and product development for Retail, Ecommerce, Financial, Telecom industries and startups	HQ: Lviv	
US Informatics www.usinformatic.com	30	Software solutions for businesses. Product development teams. Mobile and web development services	Lviv	HQ: USA
Strikersoft LLC www.strikersoft.com	30	Mobile solutions and products development	Ternopil	HQ: Sweden
stfalcon.com www.stfalcon.com	28	Web and mobile, UI and design services, game development, consulting and audit	HQ: Khmelnytsky	Germany
Polontech LLC www.polontech.com	25	JIRA, Confluence, Crowd, JIRA Agile, Bamboo, Crucible, FishEye and other Atlassian tools	HQ: Lviv	USA, Poland, Russia
Artelogic www.artelogic.net	25	Web development, desktop applications, mobile solution, QA	Lviv	HQ: USA
Romexsoft www.romexsoft.com	25	Java back-end development, web front-end development, DevOps services, automated testing	HQ: Lviv	
Forbytes (formerly I-Nova Consulting) www.forbytes.com	23	E-commerce, web and mobile development; UI/UX analysis, design, other development, including for startups	HQ: Lviv	Sweden
Handsome www.handsome.is	<20	UX consulting, web design, web development, user experience design, product design, user interface design	Lviv	HQ: USA
Stepinmobile www.stepinmobile.com	<20	Mobile devices R&D lab	HQ: Lviv	
TechMagic www.techmagic.co	<20	iOS, Android, back-end (node.js, angular.js, mongoDB) for startups. Happyscan, gamified loyalty platform for restaurants, is company's R&D project	HQ: Lviv	

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN LVIV AND WESTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Unkur Solutions www.unkur.com	<20	Affiliate systems, web automation, web data aggregation, automated and targeted data analysis, price intelligence, geographic information systems, analytics, data search	HQ: Lviv	
Innovatechstudio www.innovatechstudio.com	<20	Full cycle development for hardware products and embedded microelectronics solutions across industries	HQ: Lviv	
ETAKOM www.etakom.com	<20	Web, telecom, integration	HQ: Lviv	
Zagrava Games www.zagravagames.com	<20	Casual games, including PC/Mac downloadable games, mobile and online games	HQ: Rivne	
MindWorks www.mindworks.com.ua	<20	Web and mobile applications development using Microsoft technologies (WPF, Silverlight, ASP.NET)	HQ: Lviv	
Rubyriders www.rubyriders.com	<20	Technology consulting, development, maintenance and staff recruitment	Lviv, Dnipropetrovsk, Kharkiv	HQ: USA
JS Solutions www.jssolutionsdev.com	<20	Full-stack Meteor developers	HQ: Ternopil	
Seven www.sevencollab.com	<20	Staff augmentation, UI/UX design, mobile, web, wearables, and connected devices.	HQ: Lviv	
Johnnie Star www.outsource-partner.com	<20	Web and mobile development	HQ: Ternopil	USA
Neadevis www.neadevis.com	<20	Game development	HQ: Lviv	
Pinokl Games www.pinoklgames.com	<20	Game development	HQ: Rivne	
Joyrocks www.joyrocks.com	<20	Web and mobile casual games, including “Bird’s Town” game	HQ: Rivne	
Zeobit www.zeobit.com	<20	Windows and Mac OS platforms and web application	Rivne	HQ: USA


Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN LVIV AND WESTERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Webmil Studio www.webmil.eu	<20	Digital web agency	HQ: Ivano-Frankivsk	
USofTek www.usoftek.com	<20	Web and mobile development, design, strategy	HQ: Ivano-Frankivsk	
NetLS www.netls.com.ua	<20	Mobile applications, desktop & web applications, QA, design, e-commerce, SEO/SMM	IHQ: Ivano-Frankivsk	
Coax Software www.coaxsoft.com	<20	Front-end and back-end web solutions for startups, heavy industries, healthcare and CRM	HQ: Ivano-Frankivsk	
GRT Team www.grt-team.com	<20	Android, iOS, web and design	HQ: Ivano-Frankivsk	
Qubstudio www.qubstudio.com	<20	UI/UX, Design, web design	HQ: Lviv	
BPO Nextdoor www.bponextdoor.com	N/A	Data entry, content management, document management, call center and graphic design	HQ: Lviv	Poland

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

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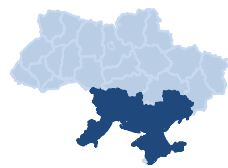
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LARGEST IT SERVICE COMPANIES WITH A
PRESENCE IN LVIV AND WESTERN UKRAINE

			
Lviv	Lviv	Lviv	Lviv
			
Lviv	Lviv	Lviv	Lviv Rivne
			
Lviv	Lviv	Khmelnyski	Rivne
			
Lviv	Lviv	Lviv, Lutsk Rivne	
			
Rivne	Kamenets Podilsky		



ODESSA & SOUTHERN UKRAINE

MAIN IT SERVICE COMPANIES

Note: In these tables, companies are listed according to the location of their headquarters. For example, SoftServe, a sizeable player with headquarters in Lviv and an office in Kyiv, is listed in the Lviv section.

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
 GeeksForLess Your Trusted IT Partner	550	Software, web and design development, mobile applications, quality assurance, system administration, call center technical support.	Mykolayiv Lviv	HQ: USA +Philippines
 PROVECTUS	270	Full service R&D vendor. Mobile app development, data science, digital commerce, interface design	Odessa	HQ: USA +Bulgaria, Russia,
 abSOFT	230	Web, mobile and desktop development, full cycle of QA, web and mobile design, system administration	Odessa	HQ: USA
 INTERSOG BEYOND TECHNOLOGY WAVE	130	Full cycle design and development of iOS and Android apps, Big data, Internet of things, Cloud solutions	Odessa, Kyiv	HQ: USA +Canada
 HYS Enterprise	140	Web development, complex back-end systems, mobile apps. Particular experience in the telecom, finance and energy industries.	Odessa	HQ: Netherlands +Germany
 AMgrade Business needs IT	80	Web development and design, mobile applications	Zaporizhia	HQ: Germany
 infotek	80	Mobile development and web design services	HQ: Zaporizhia	
 envion software	80	Marketing automation, digital asset management, natural language processing, e-learning, healthcare, telephony and other software. Also offers proprietary natural language processing products used by businesses and educational institutions worldwide.	Odessa +Kharkiv, Kyiv, Lviv	HQ: USA, Russia

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN ODESSA AND SOUTHERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Wezom www.wezom.com.ua	75	Website development, SEO, Internet marketing	HQ: Kherson +Kyiv, Mykolayiv, Odessa	
TechInsight www.techinsight.com.ua	65	Enterprise, performance and availability management, telecom, retail	HQ: Odessa	
Softwarium www.softwarium.com	60	Custom software development, offshore outsourcing and enterprise content management (ECM) integration, customization and migration solutions	HQ: Simferopol	Russia, USA
Norse Digital www.norse.digital	60	Part of NorseLab holding. Mobile, web development, design and advisory to large IT systems, game development and complex integrations	Odessa	HQ: Norway, USA
Beetroot www.beetroot.se	50	Web & mobile development, software programming, design & illustration, remote assistance services	Kyiv, Odessa, Poltava	HQ: Sweden +Moldova
Logic Lab www.logic-lab.com	35	Enterprise application development with expertise in Microsoft technologies and web development. The company is in the process of moving staff from Kharkiv to Bulgaria	Zaporizhia	HQ: Russia
Bmuse www.bmuse.com	50	Custom software development, dedicated teams service	Zaporizhia	
Innovation Group www.innovationgroup.com.ua	50	Web development and support	HQ: Odessa	
Redwerk www.redwerk.com	45	Web, desktop, mobile development	HQ: Zaporizhia +Kyiv	Germany, USA
Computools www.computools.com	34	Web and mobile development	Zaporizhia	Canada, Germany, Scotland, USA

Sources: Official company information, Local expert, Media, Best estimate

MEDIUM AND SMALL IT SERVICE COMPANIES BASED IN ODESSA AND SOUTHERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
GBK Soft www.gbkssoft.com	35	Telecom and software solutions provider	HQ: Zaporizhia Kyiv	
Light IT www.light-it.net	50	Web development services	HQ: Zaporizhia	USA, Canada
FacelT	35	Custom software development experienced in accounting and marine insurance	HQ: Zaporizhia	
Logicify www.logicify.com	30	Telecom, video sharing, social media, insurance and other industries	HQ: Kherson	
Attract group www.attractgroup.com	25	Web development and design, testing and design services	HQ: Odessa	
Elephant Head Software www.elephantheadsoft.com	20	Web and mobile development	Odessa	HQ: USA
Grandiz www.grandiz.com	<20	Financial services, real estate, retail, advertising and Internet startups	HQ: Odessa	
IQRIA www.iqria.com	<20	Web-based systems for startups and established products in Internet of things, energy, e-learning, stock exchange, business systems. Company's clients include ChallengeU, Sarus Systems LTD	Mykolayiv	HQ: USA Montenegro
iPark Ventures www.iparkcorp.com	<20	IT services for small and medium-sized business	HQ: Odessa	
Bineks www.bineks.net	<20	Web, websites and web tools development	HQ: Zaporizhia	
Altima www.altima.com.ua	<20	Website development and design	HQ: Kherson, Kyiv, Mykolayiv	
MOONION www.moonion.com	<20	Development of web projects and mobile applications	HQ: Odessa	Russia
Behind the Ocean www.behindtheocean.com	<20	Web development	HQ: Zaporizhia	
3-Nity www.3-nity.com	<20	Web design, Ruby on Rails, PHP, Java & .NET services	HQ: Zaporizhia Dnipropetrovsk	

Sources: **Official company information**, **Local expert**, **Media**, **Best estimate**

MEDIUM AND SMALL IT SERVICE COMPANIES
BASED IN ODESSA AND SOUTHERN UKRAINE

Company	Engineers	Software development specialization	Presence in Ukraine	Global locations
Studio ILV www.studio.ilv.org.ua	<20	Web design, web development, photography	HQ: Zaporizhia	
Element R&D www.element-rd.com	<20	Custom software services	HQ: Zaporizhia	
HardPoint www.hardpoint.eu	<20	IT Support, IT Solution, Dedicated development	Simferopol	USA
Prima Development www.pdgroup.co	<20	Mobile development application, Software Development	HQ: Zaporizhia	
Webinse www.webinse.com	<20	Magento development company	HQ: Zaporizhia	
Roll n Code www.rollncode.com	<20	Mobile and web development, design studio	HQ: Zaporizhia	
Stairway Soft www.stairwaysoft.com	<20	Mobile and web development, design, internet marketing, IT consulting, augmented reality	HQ: Odessa	Israel
Sponge www.sponge.com.ua	<20	Web development and design	HQ: Odessa, Kyiv	Russia, USA

Sources: Official company information, Local expert, Media, Best estimate

LARGEST IT SERVICE COMPANIES WITH A
PRESENCE IN ODESSA AND SOUTHERN UKRAINE

			
Odessa	Mykolayiv	Odessa	Kherson, Odessa
			
Zaporizhia, Berdyans'k	Odessa	Odessa	Mykolayiv
			
Zaporizhia	Simferopol	Mykolayiv	Odessa
			
Zaporizhia, Odessa	Zaporizhia	Mykolayiv	

IT UKRAINE FROM A TO Z




A P P E N D I X B

M U L T I N A T I O N A L
R&D CENTERS



MAIN R&D CENTERS
OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 915 Location: Sumy, Kyiv, Odessa In Ukraine since 2006	HQ: USA Headcount: 2,000+ Presence: Russia	Telecommunications
	The company specializes in software for business support systems and operation support systems. Three Ukrainian offices, employing more than one third of all the company's staff, cover product development and testing as well as client support.		
	Engineers: 722 Location: Dnipropetrovsk, Lviv, Zaporizhia, Berdyansk In Ukraine since 1993	Globally HQ: USA Headcount: 1,500+	Healthcare, software
	SCC Soft Computer is a leading US supplier of comprehensive laboratory and clinical information systems for the healthcare industry. Its solutions – which include Laboratory Suite, Outreach Suite, Blood Services Suite, Genetics Suite, and others – are used by over 350 clinics and medical laboratories in the USA and Canada. Its Ukrainian daughter company, ISD, has more than 722 engineers across four Ukrainian cities.		
	Engineers: 700 Location: Kyiv, Vinnytsia In Ukraine since 2006	HQ: USA Headcount: 10,000 Presence: Globally	Telecommunications
	The company specializes in software for business support systems and operation support systems. Three Ukrainian offices, employing more than one third of all the company's staff, cover product development and testing, as well as client support.		
	Engineers: 600 Location: Kyiv In Ukraine since 2009	HQ: South Korea Headcount: 425,000 Presence: Worldwide	Electronics
	Samsung's Ukrainian R&D office covers such areas as "computer vision" (a technology for creating machines that track, monitor, and classify objects), 3D graphic interfaces, image recognition technologies, applications for creating and applying new age multi-media content, solutions for device convergence and information security. Samsung was one of the first global companies to have R&D presence in Ukraine.		




MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 600 Location: Kyiv In Ukraine since 1990	HQ: Belgium Headcount: 10,000 Presence: Globally	3D Printing
	Materialise claims to have the largest capacity of additive manufacturing (also known as 3D Printing) equipment in Europe. It produces solutions for bio-medical and clinical areas such as medical image processing and surgical simulations. Their customers range from large companies in the automotive, consumer electronics, and consumables sectors; to famous hospitals, research institutes, and clinicians.		
	Engineers: 600+ Location: Lviv, Mykolayiv, Kyiv In Ukraine since 2010	HQ: Israel Headcount: 1,000+	Gaming
	<p>Plarium Global currently employing over a thousand of social gaming professionals across its various development studios in Israel and Ukraine. Plarium’s portfolio contains 13 games, enjoyed by 200m people in 150 countries. Their games are translated into 11 languages. Some of Plarium’s games are “Sparta: War of Empires”, “Stormfall: Age of War”, “Soldiers Inc”, “Total Domination: Reborn”, “Pirates: Tides of Fortune” and others.</p> <p>The first Ukrainian office was opened in Kharkiv in 2010. Now the office is home for more than 300 engineers. The Kharkiv teams develop and produce game titles with industry-leading design, code, text, and sound along with providing daily communication with millions of worldwide players. Mykolayiv office creates 2D and 3D design and interfaces in support of Plarium's development studios. Office in Lviv is one of the youngest offices and it contributes into development, design, and support for all of Plarium's current titles. Recently opened Kyiv office has already established itself as one of the leading IT & Development studios in the region. The company already is said to have an office in Sevastopol. Plarium is looking to expand its teams further in Ukraine.</p>		
	Engineers: 600 Location: Kyiv, Cherkasy In Ukraine since 1978	HQ: France Headcount: 130,000 Presence: Globally	Call center, customer experience
	The company specializes in software for business support systems and operation support systems. Three Ukrainian offices, employing more than one third of all the company’s staff, cover product development and testing, as well as client support.		



MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
 WARGAMING.NET LET'S BATTLE PERSHA STUDIA	Engineers: 500 Location: Kyiv In Ukraine since 2011	HQ: Belarus Headcount: 3,000 Presence: 16 offices globally	Game development
Wargaming is an award-winning online game developer and publisher and one of the leaders in the free-to-play MMO market. Currently, Wargaming is focused on its team-based MMO war series dedicated to the mid-20th century warfare that will include the company's flagship armored MMO World of Tanks, launched in April 2011 and currently boasting 80 million players worldwide. Wargaming has partnered with Persha Studia in 2011, the largest gaming studio in Ukraine. Since then Persha Studia developed the art for the French branch of "Tanks." Persha Studia currently works on the "World of Warplanes", an MMO game dedicated to the golden era of the history of military aviation, and the "World of Tanks: Generals", a browser-based card game on tank battles.			
 playtech SOURCE OF SUCCESS	Engineers: 550 Location: Kyiv In Ukraine since 2011	HQ: United Kingdom Headcount: 5,000 Presence: Globally	Gaming
Playtech is the world's largest online gaming software supplier traded on the London Stock Exchange Main Market, offering cutting-edge, value added solutions to the industry's leading operators. Playtech has one of the largest R&D teams in the industry, with over two-thirds of Playtech employees working in the research and development of current and future gaming technologies. The Ukraine division is located in Kyiv and was opened in 2011. It is the largest Playtech R&D center with more than 550 specialists and development teams across all Playtech products.			

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 300 Location: Kyiv, Dnipropetrovsk, Vinnytsia In Ukraine since 2010	HQ: Israel Headcount: 800 Presence: Belarus, Canada, Romania, Argentina, USA	Gaming
	Playtika is a game start-up founded in Israel in 2010 by a team of experienced entrepreneurs that immediately enjoyed sky-rocketing growth and was acquired by Caesars Interactive Entertainment one year later for \$80m. The company's games are already enjoyed by millions of users globally on 12 platforms. Playtika was the first to introduce free-to-play casino-style games to social networks. Its game, Slotomania, still remains the highest grossing app on Facebook and iOS.		
	Engineers: ~300 Location: Kyiv, Lviv, Kharkiv In Ukraine since 2014	HQ: USA Headcount: 100,000 Presence: Worldwide	Software, enterprise
	Oracle is a complete, open and integrated business software and hardware systems company. Oracle has a strongly positioned applications business in CIS and is focused on growing its market share in this area. In 2014, Oracle acquired Ukrainian TOA Technologies (Kharkiv) and Inbitec (Lviv-based technological center of TOA), adding the leading field service SaaS to Oracle service cloud and Oracle ERP cloud solutions to deliver effective and timely home- and facility-based customer service. Most recently Oracle bought A/B testing company Maxymiser that has an R&D office in Dnipropetrovsk, Ukraine. The combination of Oracle Service Cloud and TOA aims to create the most complete customer service cloud, modernizing customer service operations and driving superior customer satisfaction. The technology division of TOA Technologies has been developing mobile workforce management and customer appointment management system since 2003.		
	Engineers: 275 Location: Kyiv, Lviv In Ukraine since 1992	HQ: Germany Headcount: 350,000 Presence: Globally	Electronics, communication
	Siemens provides equipment and technology solutions for key sectors of the Ukrainian economy: industry, energy, transportation and health. Although the first official office in Kyiv was opened only in 1992, the company has been operating in Ukraine for more than 160 years. Siemens' presence in Ukraine goes back to 1853 when Siemens won the contract for the laying of a telegraph line from St. Petersburg to Sevastopol through Kyiv and Odessa. The company has representative offices in Kharkiv, Dnipropetrovsk, Kryvyi Rih, Odessa and Mariupol and R&D offices in Kyiv and Lviv.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
 maxymiser®	Engineers: 250 Location: Dnipropetrovsk, Kharkiv In Ukraine since 2006	HQ: USA Headcount: 500 Presence: Denmark, France, UK	E-commerce
	<p>Maxymiser claims to be most powerful solution for optimizing the online customer experience. Known for serving billions of individual experiences on every device, Maxymiser leverages customer data to dramatically boost engagement and revenue, while also driving long-term business value. Maxymiser works with some of the world’s most iconic brands, including HSBC, EPSON, Virgin Media, Alaska Airlines, Harry & David, and Progressive. Founded in 2006, Maxymiser is headquartered in New York City with offices in Chicago, Edinburgh, Dnipropetrovsk, Dusseldorf, London, Munich and San Francisco.</p> <p>The Dnipropetrovsk and Kharkiv offices host technical teams that work on R&D and implementation of Maxymiser’s solutions including web-development, big data analytics, and client support. The Ukrainian offices have four teams: engineering team, global technical services team, platform operations team, global service desk team. Among Maxymiser’s team are mathematicians, professors, PhD candidates and also the winners of international student Olympiads in mathematics.</p> <p>Maxymiser was acquired by Oracle in August, 2015.</p>		
	Engineers: 200 Location: Kyiv In Ukraine since 2006	HQ: USA Headcount: 300	E-commerce
	<p>Magento technology powers more than 240,000 websites, including the sites of leading global brands and retailers such as Lenovo, Nokia, Adidas, Ford, Inc. and others. As a part of eBay Enterprise, Magento is a gateway to eBay Inc.’s portfolio of commerce solutions—from eBay marketplaces and PayPal to eBay enterprise order management, retail operations, and marketing services. In 2011, eBay bought Magento for more than \$180m.</p> <p>Magento, earlier known as Varien, was founded by Roy Rubin in Los Angeles in 2001. It was by pure luck that Magento decided to locate its engineering center in Ukraine. In fact, the Ukrainian office became the key “development” force. The whole development process takes place here from receiving project requirements to the testing and release stages.</p> <p>Over time, the company’s staff reached around 300 people, most of whom are based in Ukraine. Today Roy Rubin works as Head of Commerce, one of eBay divisions. Ukrainian employees continue to work for the company.</p>		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 200 Locations: Kyiv In Ukraine since 1995	HQ: Russia Headcount: 1,250 Presence: Worldwide	Language Software
	<p>Originated from Russia, ABBYY is a global software company developing document capture and language-based technologies and has one of the largest global research centers in artificial intelligence. Over 1,000 scientists, engineers and linguists work in ABBYY's R&D department. Over 40 million people from 150 countries currently use ABBYY products. Company's clients include BancTec, Canon, EMC, Hewlett-Packard, Microsoft, etc.</p> <p>When the company launched its Ukrainian office in 1995, only 7 graduates of the Cybernetics Department of the National Shevchenko University were working for the company. Currently, the company employs more than 200 people and Ukrainian office covers ABBYY operations in other 16 countries as well. In addition to ABBYY products, the local subsidiary is working on solutions for automated accounting and implements 1S software in Ukrainian companies.</p>		
	Engineers: ~200 Locations: Kharkiv, Lviv	HQ: USA Headcount: 600 Presence: Poland, France	Cloud
	<p>Mirantis is the leading pure-play global provider of software and services for OpenStack, a massively scalable and feature-rich open source cloud operating system. OpenStack is used by hundreds of companies, including AT&T, Cisco, HP, NASA, Dell, PayPal, GAP, Comcast and many more. Mirantis is headquartered in Mountain View, California and operates across five additional international locations in Russia, Ukraine and Poland. Mirantis used to be an outsourcing company before its founder Alex Freedland turned it around into open-stack solution company. Now the company is venture-funded, including investments by Intel Capital, West Summit Capital, Ericsson and SAP Ventures.</p>		
	Engineers: 200 Locations: Dnipropetrovsk, Vinnytsya In Ukraine since 2004	HQ: Denmark Headcount: 800 Presence: Worldwide	E-commerce
	<p>Sitecore (founded in 2001, Denmark) offers companies a framework for creating web solutions and a set of modules expanding the functionality. A global leader in customer experience management, the company delivers highly relevant content and personalized digital experiences that build loyalty and drive revenue. With the Sitecore Experience Platform, marketers can own the experience of every customer who engages with their brand, across every channel. More than 4,000 of the world's leading brands — including American Express, Carnival Cruise Lines, EasyJet and L'Oréal — trust Sitecore to help them deliver the meaningful interactions that win and retain customers.</p> <p>The Ukrainian office in Dnipropetrovsk was opened in 2004, where the core team of Sitecore is based now. The DOU portal rated Sitecore as the best IT company employer in Ukraine in different nominations in 2010, 2011 and 2012.</p>		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
 SimCorp	Engineers: 200 Location: Kyiv In Ukraine since 2005	HQ: Denmark Headcount: 1,200 Presence: Worldwide	Financial
	SimCorp is a leading provider of investment management solutions and services for the global financial services industry. Founded in 1971, SimCorp has more than 40 years of experience developing solutions for the financial industry. Simcorp is a public company with market capitalization of \$11.7bln. SimCorp's expertise is the strategic foundation of its business activities; clients include some of the world's largest financial institutions, asset managers, insurance and pension funds. Ukrainian office of SimCorp was opened in Kyiv in 2005. Currently the office develops one third of SimCorp products and performs half of the work on testing solutions.		
	Engineers: 178 Location: Lviv In Ukraine since 2004	HQ: Poland Headcount: 2,200 Presence: Belarus, Sweden	Software
	Ericpol specializes in the production and development of software for telecommunication and M2M, as well as enterprises that base their activities on modern technologies. The Ericpol company was established in 1991 in Łódź. Besides the headquarters in Łódź and offices in Kraków and Warsaw, the company has production centers in Sweden, Belarus and Ukraine. The company provides outsourcing services, hiring of highly-qualified engineer teams, as well as dedicated solutions and services. Ericpol executes over 800 comprehensive long-term projects in 75 countries. Ericsson announced the acquisition of Ericpol for an undisclosed amount and the launch of an R&D center in Lviv in 2016.		
	Engineers: 190 Location: Odessa In Ukraine since 1998	HQ: USA Headcount: 800 Presence: UK, Japan, China, India, Romania, Turkey	Security
	Comodo is a leading global provider of digital security, identity and trust assurance services that include a comprehensive portfolio of high-assurance digital certificates and managed PKI solutions, e-commerce acceleration, authentication (multi-factor) and network vulnerability scanning services certified for PCI compliance reporting. Comodo secures and authenticates the online transactions and communications for over 200,000 business customers and millions of consumers.		




MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 150 Location: Kharkiv, Lviv In Ukraine since 2000	HQ: France Headcount: 5,000 Presence: Worldwide	Gaming
	<p>A leading digital and social game publisher, Gameloft has established itself as one of the top innovators in its field since 2000. Gameloft creates games for smartphones, tablets, game consoles, as well as for social networks and browsers. Gameloft is listed on NYSE Euronext Paris with market capitalization of \$353.7m.</p> <p>Gameloft operates its own established franchises such as Asphalt, Order & Chaos, Modern Combat or Dungeon Hunter and also partners with major rights holders including Universal, Illumination Entertainment, Disney, Marvel, Hasbro, Fox Digital Entertainment, Mattel and Ferrari. Gameloft is present on all continents employs over 5,200 engineers and distributes its games in over 100 countries including one in Kharkiv, where Java-programmers, C++ engineers and 2D and 3D graphic designers are located.</p>		
	Engineers: 145 Location: Odessa, In Ukraine since 2004	HQ: Ireland Headcount: 200 Presence: Ireland, USA, Canada, Israel, Lithuania	Telecommunications
	<p>DIDWW is an inbound carrier providing origination services in over 60 countries worldwide. Today, DIDWW's international coverage of local, national, mobile and toll-free virtual numbers is the widest available, and over one thousand telecom companies rely on their services globally. DIDWW's customers include Tier1 carriers, Mobile and ILD operators, ITSPs, calling card companies, conference operators and more.</p>		
	Engineers: 150 Location: Kyiv, Kharkiv In Ukraine since 2006	HQ: China Headcount: 140,000 Presence: Globally	Electronics, Telecommunications
	<p>Huawei is a leading global ICT solutions provider. It is one of the largest global vendors of telecom equipment and consumer electronics globally. The company's products are deployed in over 170 countries, serving more than one third of the world's population. Market capitalization of the company exceeds \$10.3bln. The company spends around 10% of its revenue on its 16 R&D offices employing more than 7,000 R&D employees. From 2010, Huawei has been expanding aggressively in Post-Soviet countries. The company established relations with Ukrainian network providers, such as Kyivstar, MTS, Astelit and others. In March 2012, the Chinese corporation opened its authorized network academy at the National Shevchenko University. In 2015, a number of Ukrainian operators have launched 3G network using Huawei's equipment. Huawei also completed a large-scale GSM network modernization project in Ukraine to deploy the 3G networks across the country. It is unclear why Huawei hires IT professionals in Ukraine. According to unofficial information, they are working on software localization for mobile devices.</p>		




MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: ~150 Location: Kyiv In Ukraine since 2003	HQ: Israel Headcount: 200 Presence: Switzerland, the Netherlands, Israel, Azerbaijan, Russia, Belarus, Malta, Georgia, Kazakhstan, Moldova, Brazil, Argentina, Uruguay, Zimbabwe	Software
	Benish GPS Ukraine is a leader in systems and solutions for the efficient and effective operation of the fleet, scheduling, and security on the basis of GPS and video technology for over 26 years in the world market, and more than nine years on the territory of Ukraine. Among the company's Ukrainian clients are the interior ministry, the State Customs Service of Ukraine, state enterprise Ukrainian Railways, the ministry of ecology and natural resources, the Ukrainian Post, utility provider Kyivpastrans, Roshen, Obolon, Farmak and others. The company offers GPS solutions including a vehicle GPS monitoring system, a satellite vehicle security system, a personal monitoring system, a cargo security system and a safety driving system.		
	Engineers: 100 Location: Zhytomyr In Ukraine since 1992	HQ: the Netherlands Headcount: 600 Presence: USA, Sri Lanka	E-commerce
	With over 23 years of experience and hundreds of strategic, marketing, creative and technical e-commerce professionals in ten countries, ISM delivers end-to-end e-commerce solutions for (enterprise) retailers, brands, department stores, and wholesale businesses. ISM Ukraine works on two directions: C#/.NET and PHP/Magento, implementing new electronic solutions and working on the development of e-commerce, e-learning and web-solutions. Among the company's clients are Heineken, Kruidvat, TNT Post, Primera, Triumph. The company has more than 30 partners that develop their projects using company's frameworks.		
	Engineers: 100 Location: Lviv In Ukraine since 2008	HQ: Denmark Headcount: 130 Presence: Singapore, USA, Poland	Oil & Gas
	Keel offers consultancy to companies in the oil and gas industry within the field of asset data management by helping the companies to optimize technical data concerning rigs and vessels by using specially developed IT tools to register, classify, optimize and structure technical asset data, before it is synchronized with the customer's own business data in their computerized maintenance management system (CMMS) such as SAP. The company has a development center in Lviv.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 100 Location: Kyiv In Ukraine since 2001	HQ: United Kingdom Headcount: 500 Presence: Worldwide	Advertising
	Adstream is a leading global advertising digital asset management, workflow and distribution company. The company provides innovative tools for managing the production process in advertising in more than 93 countries globally and serves more than 5,000 customers globally. Adstream delivers over 1 million ads per year to more than 110 countries. Founded 12 years ago in Australia, nowadays Adstream has more than 350 staff over 30 regional offices, one of which is in Kyiv.		
	Engineers: 150 Location: Kyiv In Ukraine since 2005	HQ: Germany Headcount: 500+ Presence: Hungary, Bulgaria, South Korea, China, Turkey, USA	Gaming
	Crytek is an independent videogame developer, publisher and technology provider. It has released multiple award-winning games which include the original Far Cry, The Crysis series, and Ryse: Son of Rome and Warface. All of the company's games are developed using a proprietary software, CRYENGINE, which is also used by other developers and licenses. Founded in 1999, Crytek has headquarters in Frankfurt (Germany), and seven additional studios around the world, including Kyiv.		
	Engineers: 100 Location: Kyiv In Ukraine since 2007	HQ: USA Headcount: 350 Presence: USA	Software
	EngagePoint delivers enterprise software and services to the USA government. The company was founded in 2007 and recognized as one of the fastest growing companies in North America on Deloitte's 2013 Technology Fast 500. Forbes included EngagePoint to the Top 20 ranking of companies with the largest R&D centers in Ukraine. The majority of the company's products are developed in its R&D center in Kyiv. Ukrainian employees may participate in an exchange program with the USA.		


MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 100 Location: Mykolayiv In Ukraine since 2000	HQ: United Kingdom Headcount: 100+ Presence: Worldwide	Telecommunication
	LogNet Systems and their MaxBill solution are delivering billing, service delivery and customer experience solutions. LogNet Systems has designed and deployed over 50 complex customer management and billing solutions for communications, utilities, financial and transportation service providers worldwide. Since 1996, the MaxBill solution has been helping communications, TV, content, utilities, financial and transportation service providers worldwide grow their businesses in rapidly changing and highly competitive markets. LogNet Systems is headquartered in the United Kingdom and has offices and representation across EMEA, APAC and Americas. Ukrainian office is a fully functional development office that employs best in class managers, engineers, QA specialists and admin staff. Currently the office is working on developing the fifth generation of the product.		
	Engineers: 100 Location: Kyiv In Ukraine since 1990	HQ: Russia Headcount: 1,100	Microelectronics
	Sitronics is an international IT company, and one of the leading suppliers of solutions, products and services in the field of information technologies in Eastern Europe and the CIS countries. The company was founded in 1990. Sitronics has more than 1,100 experts, over 200 experts of which possess international certificates and have competency to develop, manufacture and support the most complex business-systems as well as information and communication solutions. Sitronics partners include leading players in the world IT-market, including Microsoft, IBM, Oracle, Sun Microsystems, Cisco Systems, Hewlett-Packard, Motorola, Nortel, Alcatel-Lucent and others.		
	Engineers: 75 Location: Kyiv In Ukraine since 2008	HQ: France Headcount: 1,920 Presence: Worldwide	Gaming
	Ubisoft is the third largest (after Electronic Arts and Activision Blizzard) independent game publisher in the world by revenue. Ubisoft is composed of over 9,200 talented people located in 28 countries across the globe. With around 85% of its staff devoted to game development, Ubisoft has the second largest in-house creative team in the world. In total, Ubisoft has 29 studios in 19 countries. Among its iconic games are Assassin's Creed, Tom Clancy's Ghost Recon, Tom Clancy's Splinter Cell, Rabbids, Rayman, Watch Dogs, Far Cry, The Crew, and Just Dance. Many of the PC-based games including Assassin's Creed (Assassin's Creed II, Assassin's Creed: Brotherhood, Assassin's Creed: Revelations, Assassin's Creed III, Assassin's Creed IV: Black Flag) were developed in Ukraine. Kyiv office also contributed towards the development of Far Cry 4, Assassin's Creed Unity and Trials Fusion. It is speculated that the company is thinking about opening offices in Lviv and Odessa in the future.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 100 Location: Kharkiv In Ukraine since 2006	HQ: USA Headcount: 350 Presence: Russia	E-commerce
	Grid Dynamics is a leading provider of open, scalable, next-generation commerce technology solutions for Tier 1 retail. Many of the company's engineers possess doctorate degrees and awards at international competitions such as TopCoder and the ACM World Championships. In 2011, Grid Dynamics was selected by Stanford University for its "World Economic Forum Report on Global Entrepreneurship" presented at Davos, Switzerland and was named a "Cool Vendor in Infrastructure Services" by Gartner Research. In 2009, Grid Dynamics was named as one of the "Top cloud computing players" by Cloud Computing Journal and was nominated as one of Microsoft's "Start-up to Watch." Among the company's customers are eBay, Yahoo, Raley's, Kohl's, Macys, x.commerce, and PayPal. The company has a development office in Kharkiv.		
	Engineers: 100 Location: Kharkiv In Ukraine since 2003	HQ: USA Headcount: 200 (TOA), 100,000 (Oracle)	Cloud, enterprise solutions
	TOA Technologies (together with its technology center Inbitec) provides cloud-based field service management applications. As a complete on-demand solution, TOA's solution uses time-based pattern recognition and predictive analytics to reduce customer wait times while increasing field workforce efficiency. Across four continents, TOA's field service solution manages mobile workforces for some of the world's most recognizable global brands in the satellite/cable/broadband, telecom, utilities, insurance, home services and retail industries. TOA has been named a leader in the Gartner Magic Quadrant for Field Service Management, 2012 and 2013, and was acquired by Oracle in July 2014. Around 100 engineers who worked for TOA in Kharkiv continue working for Oracle.		
	Engineers: 100 Location: Kyiv In Ukraine since 2000	HQ: Denmark Headcount: 500 Presence: China, USA, Germany, France, Italy, Poland, Colombia, Brazil	3D Technologies
	3Shape A/S is a Danish hi-tech company specializing in the production and development of 3D solutions (3D scanners and 3D software) for industrial and healthcare applications, such as hearing and dental aid production, where we have a global leading position for more than 10 years. We are an international company with headquarters in Denmark, manufacturing in Poland, development office in Ukraine (Kiev) and representation offices in USA and China. 3Shape has customers in more than 70 countries around the world.		



MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 230 Location: Odessa In Ukraine since 2011	HQ: USA, China, UK Headcount: 1500+	Telecommunication
	AB Soft is a fast-growing development center of RingCentral, Inc. (USA), a leading provider of cloud-based business telephone system for small and medium businesses. The company develops advanced communications solutions converging multitude of technologies: traditional, cellular and VoIP telephony, faxes and email. The company have won top industry honors, including the 2010 World Economic Forum Technology Pioneer Award and PC Magazine Editor's Choice Award. AB Soft's products are used by more than 270,000 business consumers in the USA, Russia, Ukraine, Europe and many other countries.		
	Engineers: 85 Location: Kyiv In Ukraine since 2005	HQ: USA Headcount: 340 Presence: Norway	Online work
	Upwork (formerly Elance-oDesk) is the world's largest freelance talent marketplace. The story of the company began with the merger of two online-work giants: Elance and oDesk. In 2015 the company was rebranded as Upwork. Today the platform unites 14m employers and freelancers who annually earn more than \$1b in wages (this figure is expected to grow by ten times). Ukraine is the first country in Europe and the fourth in the world (after India, the USA, and the Philippines) by the volume of freelancers' wages. With an average salary of \$24-29 per hour, Ukrainian freelancers in 2014 completed 40,000 orders and earned \$61m. This number is expected to double in the next year. Also, 25% of the platform's engineers are from Ukraine.		
	Engineers: 80 Location: Kyiv In Ukraine since 2008	HQ: USA Headcount: 80 Presence: Worldwide	3Education
	Grammarly improves communication among the world's 2+ billion native and non-native English writers. Its flagship product, the Grammarly Editor, corrects contextual spelling mistakes, checks for more than 250 common grammar errors, enhances vocabulary usage and provides citation suggestions. More than seven million users, four million subscribers worldwide trust Grammarly's products, which are also licensed by more than 600 leading universities and corporations. The company ranks 55th on Deloitte's 2014 Technology Fast 500 list of fastest growing companies in North America as well as it was selected as a finalist in the Eighth Annual Crunchies Awards. Grammarly is headquartered in San Francisco with an R&D office in Ukraine.		





MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 80 Location: Kyiv	HQ: Belgium Headcount: 700 Presence: Worldwide	Semiconductor
	Melexis designs, develops, tests and markets advanced integrated semiconductor products. The company supplies unique sensor and driver chips, communicating with analog, digital, wired or wireless interfaces, enhanced with advanced on-board microcontrollers or DSP capabilities. Melexis has a wide range of standard products for both automotive and industrial applications. Among its clients are such companies as Bosch, TRW, Valeo, Continental, Brose. Its products are used in the cars of such brands as BMW, Toyota, Porsche, Mazda, Audi, Rover, Jaguar, Skoda, Ford, Honda. One of its 7 design centers is located in Kyiv, Ukraine.		
	Engineers: ~80 Location: Lviv, Mykolayiv, Kherson	HQ: USA Headcount: 150	E-commerce, web
	TemplateMonster is a leading player on web design market providing over 46,000 of its templates of different types to its global audience. In addition to its static HTML and Flash templates, the company also provides website templates for all major CMS and e-commerce platforms (such as Joomla, WordPress, Magento, osCommerce, Drupal etc.). The company is headquartered in the USA and has development offices in Lviv, Mykolayiv and Kherson.		
	Engineers: ~80 Location: Lviv	HQ: USA Headcount: 7,100 Presence: Worldwide	Semiconductor
	Cypress delivers high-performance, high-quality solutions for today's most advanced embedded systems, from automotive, industrial and networking platforms to highly interactive consumer and mobile devices. The company has differentiated product portfolio that includes the flagship PSoC 1, PSoC 3, PSoC 4 and PSoC 5LP programmable system-on-chip families. Cypress is the world leader in capacitive user interface solutions including CapSense touch sensing, TrueTouch touchscreens, and trackpad solutions for notebook PCs and peripherals; USB controllers; SRAM and nonvolatile RAM memories. The company trades on the NASDAQ and has a market capitalization of \$3.9b. Based in San Jose, California, Cypress Semiconductor Corp. has 7,100 employees worldwide serving more than 30,000 customers. One of its numerous offices is located in Lviv.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: ~70 Location: Dnipropetrovsk In Ukraine since 2006	HQ: Israel Headcount: 500+ Presence: Brazil, Lithuania	Web technologies
	Wix.com is a web development platform enabling anyone to build a stunning online presence using simple cloud-based creation and management tools. At Wix's core is an HTML5 drag-and-drop website editor, enhanced by a highly curated app market, 100 of designer-made templates, top-grade hosting and a variety of free features. With headquarters in Israel, the company has more than 700 employees worldwide, and over 57,000,000 online users.		
	Engineers: 60 Location: Dnipropetrovsk In Ukraine since 2008	HQ: USA Headcount: 1,000+ Presence: Latvia, Russia, UK, Australia	Enterprise
	Return on Intelligence (ROI) is a global technology services firm. We provide technology consulting, systems integration and commercial software solutions. The company's services focus on customer centricity, data analytics, core systems transformation and the application of innovative and disruptive technologies.. Return on Intelligence is headquartered in the USA with 1,000 employees and development offices in Ukraine, Russia and China.		
	Engineers: ~70 Location: Lviv In Ukraine since 2010	HQ: United Kingdom Headcount: 140 Presence: USA, Malasia	Cloud
	OnApp provides Infrastructure-as-a-Service software for hosts, telcos and MSPs. Their software is used by more than 3,000 service providers in 93 countries. An estimated one in three public clouds now run on OnApp. OnApp was founded in 2010. Now the company has more than 140 staff across offices in the USA, UK, Europe, including one in Lviv and Asia-Pacific. In 2015 the company announced OnApp DRaaS, a new disaster recovery service that brings real-time replication and restore to OnApp clouds. In April, Cloud.net left beta and launched as the first global compute cloud built on the OnApp Federation.		
	Engineers: ~50 Location: Lviv, Kyiv	HQ: Poland Headcount: 4,300 Presence: Worldwide	Enterprise
	Comarch is a global provider of IT business solutions that aim to optimize operational and business processes with products for billing, network management, ERP systems, IT security, CRM and loyalty management, EDI, sales support, electronic communication and business intelligence. Since its inception in 1993, Comarch has become the leading IT company in Central and Eastern Europe. It currently employs nearly 4300 employees in 23 countries worldwide and has around 40,000 clients in 35 cities. Ukrainian development office is based in Lviv and is said to be working on the development of ERP systems.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: ~50 Location: Dnipropetrovsk In Ukraine since: 2003	HQ: Poland Headcount: ~60 Presence: China, India	Financial
	Protrader develops trading software for a wide range of financial markets including Forex, Stocks, Futures, Options, and CFDs. The company currently serves different market participants from the USA, Canada, Australia, Japan, India, New Zealand, China, Turkey, Russia, Great Britain, Poland and South Africa. While the company is headquartered in Gdansk, Poland, its main development office is located in Dnipropetrovsk, Ukraine.		
	Engineers: ~50 Location: Odessa	HQ: Russia Headcount: 600	Gaming
	Social Quantum is a publisher and developer of game applications for social communities that combines unique interactive game space modeling technologies with current trends in social networks development. Social Quantum's seven studios are situated in CIS and Eastern Europe. The company has an audience of more than five million unique visitors per day and over 50 million registered users. Among their most famous games are Dragons World (3m players) and Megapolis (5m players).		
	Engineers: 60 Location: Vinnitsia In Ukraine since 1996	HQ: Germany Headcount: ~100	Software
	Soft Xpansion is one of the leading players in the development and delivery of customized integrated systems to automate the conversion and storage of documents and business processes of circulation and exchange of documentation. The company published more than 200 desktop B2C software products in Germany, Great Britain, France, Italy, the USA, Benelux, Ukraine, Spain, Russia, Portugal, Australia and Turkey. The administration, product management, marketing and distribution departments are located in Bochum, Germany. Soft Xpansion has an R&D department in Ukraine where a significant portion of product management, marketing and distribution duties are directly handled by Soft Xpansion Ukraine. The department includes more than 50 software development specialists: systems analysts, programmers, screen designers, engineers, translators and technicians.		
	Engineers: ~50 Location: Lviv In Ukraine since 2001	HQ: USA Headcount: 500 Presence: Worldwide	Software
	Comarch is a global provider of IT business solutions that aim to optimize operational and business processes with products for billing, network management, ERP systems, IT security, CRM and loyalty management, EDI, sales support, electronic communication and business intelligence. Since its inception in 1993, Comarch has become the leading IT company in Central & Eastern Europe. It currently employs nearly 4300 employees in 23 countries worldwide and has around 40,000 clients in 35 cities. Ukrainian development office is based in Lviv and is said to be working on the development of ERP systems.		




MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
 Mita-Teknik <small>Great at Control</small>	Engineers: ~50 Location: Lviv In Ukraine since 2002	HQ: Denmark Headcount: 230 Presence: USA, China, India	Software
	Mita-Teknik has been in the business of control automation since 1969 and in the Wind business since the very beginning in the early 1980's. The company develops and manufactures control systems, power panels and technology to wind turbines and acts as the One-Stop-Shop of some of the world's leading wind turbine manufacturers. The company has around 230 employees and divisions in Ukraine, India and China.		
Orga Systems.	Engineers: 50 Location: Kyiv In Ukraine since 2003	HQ: Germany Headcount: 700 Presence: India, Brazil, Argentina, Russia, Italy, Turkey	Telecommunication
	Orga Systems is a leading software vendor for convergent charging and billing, with an international customer base in telecommunications, utilities and automotive markets. Orga Systems' GOLD product family provides embedded policy control, real time charging and billing and order management, all driven by a central product catalog. Worldwide leading telecommunications providers, energy suppliers, railway companies and car manufacturers rely on Orga Systems and achieve reduced OPEX, real time-to-market, short-termed ROI as well as beneficial access to new value chains and profitable revenue streams. Orga Systems' long term customers are A1 Telekom Austria, Türk Telekom, Telecom Italia, TIM Brazil, Entel Chile, Sunrise Switzerland, Personal Argentina, Life:) Ukraine, America Movil, Telia Sonera, Meralco Philippines and Deutsche Bahn NETZE.		
 SDL	Engineers: 50 Location: Kyiv In Ukraine since 1992	HQ: United Kingdom Headcount: 2.700 Presence: Worldwide	Software
	SDL is a world leader in global customer experience management. SDL has over 1,500 enterprise customers, 400 partners and a global infrastructure of 70 offices in 38 countries. The company is listed on the London Stock Exchange with the market capitalization of \$320m. 42 of 50 global worldwide brands use SDL software. Among them are such well-known brands in Ukraine as HP, Lexus, Nokia, KLM, Disney and many others. SDL's Tridion development lab Ukraine was established in 2008 and is now one of the key SDL software development centers. In cooperation with development teams in the Netherlands, Belgium, USA and the UK, the Kyiv office works on world-renowned products such as SDL Global AMS and SDL Tridion.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 50 Location: Kyiv In Ukraine since 2006	HQ: USA Headcount: 500 Presence: Germany, Russia, Japan, Singapore, Australia, UK, Armenia	Financial
	CQG provides high-performance trade routing, global market data, and advanced technical analysis. CQG partners with more than 80 FCMs and provides direct market access to more than 40 exchanges through its global network of co-located hosted exchange gateways. CQG's market data feed consolidates more than 75 sources, including exchanges worldwide for futures, options, fixed income, foreign exchange, and equities as well as data on debt securities, industry reports and financial indices. CQG began serving USA traders in 1980, expanding to Europe in 1988 and to Asia in 1998. Company's R&D centers are located in Denver, Kyiv, Samara, Moscow, Yerevan and Zelenograd.		
	Engineers: <50 Location: Kyiv In Ukraine since 2006	HQ: Russia Headcount: ~50 Presence: Brazil, India	Transportation Software
	KGK Global is a multinational company with offices in Russia, Ukraine, Brazil and India. It is an R&D and services company that has its team of HW engineers, SW designers, sales, support, installers and employees of other supporting functions. Since 2006, KGK, a design and engineering company, has been a leading developer and manufacturer of a professional fleet managing system which is called GLOBAL. KGK has gained considerable experience in the development of related software.		
	Engineers: 50 Location: Kyiv In Ukraine since 2007	HQ: USA Headcount: 200 Presence: UK	Software
	TFG (the Frayman Group) is an Intapp Company is a leading provider of enterprise risk management software for law. The company has 100+ law firm customers, including 25 firms in the Am Law 50. Intapp is serving more than 525 customers, including 88% of the Am Law 100 and 80% of the Global 200. Intapp acquired TFG in April, 2014.		
	Engineers: 30 Location: Odessa	HQ: USA Headcount: ~200	Enterprise software
	Electric Cloud provides software production management (SPM) solutions to companies that deliver software as part of their products and services, helping to automate, accelerate and analyze software build-test-deploy processes. Electric Cloud has three main products – ElectricDeploy, ElectricCommander, and ElectricAccelerator. Industry leaders like Qualcomm, SpaceX, Cisco, GE, Gap, and E*TRADE use Electric Cloud solutions and services to boost DevOps productivity and Agile throughput. The company is headquartered in San Jose, CA and has a development office in Odessa. Electric Cloud is a venture-backed company with more than \$30m in funding from Siemens Venture Capital, Mayfield Fund, and Rembrandt Venture Partners among other investors.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 30 Location: Odessa In Ukraine since: 2014	HQ: USA Headcount: 700	Software, Energy
	<p>Opower's technology is transforming the way utilities relate to their customers. Founded in 2007 and publicly traded on the NYSE, the company's market capitalization is \$472.9m. Opower has been named a Bloomberg New Energy Finance Pioneer, EURELECTRIC's company of the year, and among the 20 fastest growing tech companies in North America. Today, Opower's client base includes more than 95 utilities and 32 million consumers in more than nine countries. The company has offices in San Francisco, London, Singapore, Tokyo and Odessa. The R&D office in Odessa was opened in winter, 2014 with the goal of expanding company's research and development capabilities.</p>		
	Engineers: ~30 Location: Kyiv In Ukraine since 1992	HQ: Israel Headcount: 300 Presence: Taiwan, India, USA	Audio processing
	<p>Waves is the world's leading provider of audio DSP solutions for professional, broadcast and consumer electronics audio markets, and recipient of the 2011 Technical GRAMMY award for its contributions to the recording industry. Waves has twenty years of expertise in the development of psychoacoustic signal processing algorithms that leverage knowledge on the human perception of hearing to radically improve perceived sound quality. Waves offers computer software solutions and hardware plus software solutions for the professional and broadcast markets. Waves also offers semiconductor with embedded software solutions under the Maxx brand for the consumer electronics audio applications. Waves' Maxx technologies dramatically enhance audio performance and are used by industry leaders such as Dell, Sony, Sanyo, JVC, Toshiba, and many others.</p>		
	Engineers: ~30 Location: Kyiv In Ukraine since 2006	HQ: USA Headcount: 600 Presence: UK, Singapore, Japan, Australia	Advertising
	<p>TubeMogul is a leading advertising software company for digital branding. The world's largest brands and agencies unify their video advertising on TubeMogul's programmatic platform. By using a single, integrated solution, TubeMogul's clients gain control over their video spend, simplify their workflow and verify the success of their campaigns. Brett Wilson, Tube Mogul's co-foudner and CEO, also founded Tech4Ukraine, an initiative aimed at raising global support and awareness for Ukraine's information technology industry.</p>		




MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 40 Location: Kyiv In Ukraine since 2001	HQ: USA Headcount: 425,000 Presence: India, China	Cloud
	Infrascale is an industry-leading data protection platform that has more than 1,000 service provider partners, who protect data for more than 250,000 companies. Infrascale's data protection platform represents the broadest product line in the industry, covering the most devices and operating systems, all managed from a single interface. Infrascale is a maker of SOS Online Backup, a popular product that provides cloud backup and archiving. Infrascale FileLocker provides secure file-sync and collaboration for enterprises. Infrascale Enterprise Protect offers centrally managed end-point protection for larger companies.		
	Engineers: 40 Location: Kyiv In Ukraine since 2006	HQ: Belgium Headcount: 50 Presence: USA, Netherlands	Financial Services, Enterprise
	IntellectTechnologies LLC is a part of IntellectEU Group, a Ukrainian-Belgian company that specializes in SWIFT integration and development of banking and treasury software including development of its own products. The company has executed numerous projects in 18 countries within North America, Europe, Africa and Middle East. IntellectEU has the status of Premiere SWIFT Business Partner in the USA. IntellectEU offers three products: Numic that provides % automated global cash visibility across all parameters; Intellect Distribution System (IDS), a messaging hub for data transformation, validation and transport; Intellect Link, a financial messaging platform for financial messages.		
	Engineers: 30 Location: Kyiv In Ukraine since 1998	HQ: USA Headcount: 70 Presence: South Africa	Marketing
	SMTP, Inc. is a NASDAQ listed company (market capitalization of \$35.4m) providing email services for customers ranging from small business to enterprise-scale. SMTP's core delivery service improves inbox delivery and open rates and is complemented by the advanced email functionality of GraphicMail and SharpSpring, two recently acquisitions. GraphicMail is an email services provider founded over a decade ago with operations in 14 regions globally. SharpSpring launched an innovative platform for marketing automation in 2014. It is growing rapidly through its sophisticated functionality and compelling ease-of-use. Founded 12 years ago, SMTP has over 10,000 paid customers worldwide, ranging from small businesses to large Fortune 500 companies globally.		
	Engineers: 30 Location: Kyiv In Ukraine since 2010	HQ: Switzerland Headcount: 80 Presence: Globally	3D Printing
	SandSIV, a recognized global leader in VoC and CXM, enables world leading companies to gather superior customer intelligence. With its modular SaaS solution and expert Customer Experience Management (CXM) and Voice of the Customer (VoC) consulting SandSIV solutions, SandSIV operates globally and specializes in the following industry verticals: automotive, entertainment, financials, hospitality, media, retail, telecoms, transport and utilities.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
 Paymentwall	Engineers: 40 Location: Kyiv In Ukraine since 2001	HQ: USA Headcount: 100 Presence: Germany, the Netherlands, Turkey, China, Vietnam	Financial
	Paymentwall is the leading digital payments platform for globally monetizing digital goods and services. Paymentwall assists game publishers, dating sites, rewards sites, SaaS companies and many other verticals to monetize their digital content and services. Paymentwall has 120+ local payment options covering a wide range of payment types that will be instantly familiar and recognizable to your customers. With seven offices around the world, Paymentwall provides its user interface and customer service in many languages.		
 DENTSPLY	Engineers: 30 Location: Kyiv In Ukraine since 1990	HQ: Belgium Headcount: 1,000+ Presence: Globally	3D Technology
	Dentsply International Inc. is a leading manufacturer and distributor of dental and other consumable healthcare products. Its broad global product platform helps dental professionals serve patients' oral health care for a lifetime, from preventive services to tooth replacement.		
 CLOUD MADE	Engineers: 30 Location: Kyiv In Ukraine since 2008	HQ: USA Headcount: 50 Presence: UK, Germany	Cloud
	CloudMade works with the world's leading automotive and consumer electronics OEMs to help them deliver remarkable mobility experiences. From smartphones to wearables to connected cars, CloudMade is an established pioneer of location-based technologies. At the core of CloudMade platform is OpenStreetMap, the large, rapidly growing online community which is building a free map of the world. CloudMade's first set of APIs was released in June 2008 and included rich web and mobile mapping APIs which allow developers to embed CloudMade maps into applications. Cloudmade is a product of Cogniance, an IT outsourcing company with an office in Kyiv.		




MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 30 Location: Kyiv In Ukraine since 2010	HQ: Poland Headcount: 100 Presence: UK, Singapore, USA, Poland, Germany, Japan	Advertising
StrikeAd built the first dedicated mobile advertising demand side platform (DSP), enabling advertisers, brands and agencies to plan, optimize and deliver the most effective mobile advertising campaigns on a global scale. The company streamlines mobile advertising and offers agencies and marketers a single point-of-access to a vast mobile web and in-app inventory all over the world. The company has been going for four years now and is growing very quickly with offices in New York, Los Angeles, Chicago, London, Krakow, Kyiv and Singapore. Sizmek Inc. (Nasdaq: SZMK), a leading open ad management platform company for multiscreen campaigns, acquired StrikeAd in May, 2015 for \$11.7m			
	Engineers: ~35 Location: Dnipropetrovsk	HQ: Canada Headcount: ~50 Presence: USA, Europe	Software
PosiTrace GPS Tracking System is designed and supported by global fleet management (GFM), headquartered in Vancouver, BC, with offices in the USA and Europe. PosiTrace GPS Tracking system gives organizations access to real-time information about the location of their vehicles which allows businesses to save money, increase employee productivity, and prevent loss or theft of vehicles and equipment. The company has a development office in Dnipropetrovsk.			
	Engineers: 40 Location: Odessa In Ukraine since 2010	HQ: USA Headcount: ~80 Presence:	E-commerce
Slice (acquired by Rakuten in 2014) develops technology for ecommerce in the areas of machine learning, data mining and social computing. Before the acquisition, the company was headquartered in Palo Alto, CA with additional research and development center in Odessa. Its mobile application was helping to track the delivery of the goods purchased and store customer's purchase history. Even after the acquisition, Rakuten is said to keep the development team in Odessa. Rakuten is the largest ecommerce company in Japan, and third largest ecommerce marketplace company worldwide. Founded in 1997, Rakuten is headquartered in Tokyo, with over 10,000 employees and partner staff worldwide. Rakuten's 2013 revenues were 518.6b yen.			

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: ~30 Location: Odessa, Lviv In Ukraine since 2005	HQ: Italy Headcount: 50+ Presence: Germany, France	Telecommunication
	Wildix is a multinational company operating in the branch of telecommunications and specializing in voice over IP (VoIP) products and unified communication solutions that bring together audio and video calls, instant messaging, conferences, online chat, fax and SMS sending and desktop sharing. Its flagship product is Wildix Kite, a professional solution for business communication based on the WebRTC technology. Headquartered in Italy, the company has a development office in Odessa, where most of the company's development is done, and a business office in Lviv.		
	Engineers: ~30 Location: Dnipropetrovsk	HQ: USA Headcount: 200+ Presence: UK, China, India, Russia, Bulgaria, Australia	Finance
	Boston Merchant Financial is an international company with the head office located in Boston, USA. BMFN offers financial services worldwide such as investment solutions, clearing options for banks and corporations, money management services for retail customers and money managers. BMFN develops its own software products and solutions which considered to be among the best available in the financial markets industry. With 9,000 active traders globally and 4,000 partners, the company has offices across the globe and online trading platforms in 17 languages.		
	Engineers: ~25 Location: Kyiv In Ukraine since 2010	HQ: USA Headcount: 250	Telecommunications
	Broadvox is a leading domestic and international provider of IP communications. Since Broadvox became the first USA-based VoIP provider to accept and pass voice packets in 2001, its regional network (currently available in 100 LATAs) has grown into a robust global network covering more than 8,900 rate centers in the contiguous USA, Hawaii, Puerto Rico, and Canada.		
	Engineers: 25 Location: Kyiv , In Ukraine since 2001	HQ: Russia Headcount: 3,000	Web technologies
	2gis is an international company with more than 100 offices around the world whose main product is a free directory listing on more than 270 cities globally. The company's products are used by more than 20m people. The company has three R&D offices with 400 engineers including one in Ukraine that is working on the map and directory components of 2gis product.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: 25 Location: Kyiv In Ukraine since 2005	HQ: Netherlands Headcount: 40 Presence: Belgium	E-commerce
	Qbikz is a high-performance research and e-commerce company, specializing in Magento development. The company builds high performing e-commerce solutions and integrates them with the existing business processes (ERP / CRM / BI / POS systems and others). With more than 25 certified Magento developers, Qbikz builds B2B and B2C e-commerce omni-channel projects.		
	Engineers: 15 Location: Kyiv In Ukraine since 2007	HQ: Israel Headcount: 150 Presence: Hong Kong, Cypress, China	Financial
	Leverate is a pure technology provider specializing in complete brokerage solutions. A premium broker solutions provider, the company is dedicated to delivering a wide array of innovative solutions and services that enable Forex brokers and financial institutions to minimize risk and maximize broker's profit. After a humble beginning in a single room, Leverate has grown into a multi-national company with four offices around the world, including two major R&D centers (one of which is located in Ukraine), and a CySEC regulated division dedicated to providing liquidity.		
	Engineers: <20 Location: Kyiv In Ukraine since 1995	HQ: Russia Headcount: 200 Presence: Belarus, Latvia, Lithuania	Security
	SearchInform is a multi-national DLP (data loss prevention) company specializing in all-encompassing corporate data security solutions since 1995. SearchInform Information Security Perimeter (SISP) is a software solution used to monitor and prevent leaks of sensitive data through e-mail, Skype, ICQ and other instant messengers, forums and web blogs, removable media (CD/DVD/USB), corporate laptops, iPads, iPhones, FTP, file servers, and printers. SISP is currently present in more than 1,000 companies.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: <20 Location: Kyiv In Ukraine since 1989	HQ: Ireland Headcount: 250 Presence: UK, USA, South Africa, India	Financial
	Established in 1989, Sysnet Global Solutions provides payment card industry compliance services, specializing in PCI DSS compliance validation and merchant intelligence solutions. Sysnet offers a range of services, including its proprietary web based compliance management and merchant intelligence solution Sysnet.air®, to a wide variety of businesses including acquirers, ISOs, international banks, payment service providers and merchants. Sysnet.air is a fully white-labeled merchant intelligence solution that centres around the compliance process. Headquartered in Dublin, Sysnet has clients in over 40 countries worldwide.		
	Engineers: ~20 Location: Kharkiv In Ukraine since 1996	HQ: Canada Headcount: ~50 Presence: South Africa	Mining
	Sight Power provides spatial enterprise solution for mining companies. This product allows the client to obtain an effective access to the distributed spatial data regardless of its volume and the actual location of data servers. Today Sight Power works on the replicating automated monitoring system for the mine-shafts and transportation tunnels with corresponding internal infrastructure. Software and algorithms for processing spatial data are mostly produced in the Ukrainian office in Kharkiv, while the hardware design is done in South Africa and Canada.		
	Engineers: <20 Location: Dnipropetrovsk In Ukraine since 2006	HQ: USA Headcount: 100 Presence: Russia	Financial, Payments
	Net Element is a global technology group specializing in mobile payments and value-added transactional services. It owns and operates a global mobile payments processing provider, TOT Group, Inc. TOT Group companies include Unified Payments, recognized by Inc. Magazine as the number one fastest growing private company in America in 2012, Aptito, a next generation cloud-based point of sale payments platform and TOT Money, a leading provider of SMS messaging and mobile billing solutions. The company has U.S. headquarters in Miami, Florida and international headquarters in Moscow, Russia. In Ukraine, the company has an office in Dnipropetrovsk.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: <20 Location: Cherkasy In Ukraine since: 2011	HQ: United Kingdom Headcount: 300 Presence: Spain, USA, Germany	Financial
	TransferWise is a peer-to-peer money transfer service launched in January 2011 by Estonian friends Kristo Käärman and Taavet Hinrikus. Based in the United Kingdom, the service allows users to transfer money between countries and make foreign payments using the mid-market or interbank exchange rate. The service is currently operating in 48 countries in 26 currencies. Interestingly, the company's first employee, Bogdan Danilyuk, is a Ukrainian who later helped the company open an R&D office in Cherkasy, Ukraine, which currently employs 12 engineers. Transferwise is a venture-backed company that raised \$91m from Andreessen Horowitz, IA Ventures, Index Ventures, and Richard Branson, Seedcamp, among other investors.		
	Engineers: 20 Location: Dnipropetrovsk In Ukraine since 2000	(RingCentral) HQ: Panama Headcount: 50 Presence: USA	Financial
	ActForex is one of the first innovators of independent retail forex trading technology whose clientele consists of financial institutions, FCMs, broker/dealers, introducing brokers and money managers around the globe. Since 2000, more than 120 market makers and 3,000 introducing brokers have utilized ActForex platforms. Today there are over 200,000 retail traders worldwide using the ActForex platform in 15 languages. The company has a development office in Dnepropetrovsk, Ukraine.		
	Engineers: 20 Location: Dnipropetrovsk In Ukraine since 1995	HQ: USA Headcount: ~60 Presence: UK, the Netherlands, Russia	Financial
	InfoReach is an independent provider of multi- and cross-asset, broker-neutral solutions for electronic, algorithmic and high-frequency trade analysis, management and execution of global equities, futures, options and forex. InfoReach is headquartered in Chicago while its Dnipropetrovsk office works on the development of one of the leading executive management systems which is deployed in banks and investment funds across the USA. Company's other solutions include FIX Engine, the InfoReach FIX Network (IFN), Second Opinion and Prelude services.		





MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
 	Engineers: 40 Location: Odessa In Ukraine since 1995	HQ: Norway Headcount: 1200+ Presence: Worldwide	Internet Browser
	Opera mobile store, the fifth largest app store in the world, provides over 120,000 apps and games for more than 6,000 different mobile phone models across most platforms, including Android, Java, Symbian, BlackBerry, Windows Mobile, and iOS. It serves over 60 million monthly unique users from 230 countries of the world. It also serves as a digital application distribution platform for the developers of mobile apps. Apart from Opera mobile store distribution platform, Opera also offers promotional options that extend beyond the mobile store to reach more than 260,000,000 users of Opera's mobile browsers. The main office of the company is located in Odessa, where engineering team works on the development, support, and content creating for the store. Opera mobile store is a part of Opera software company.		
	Engineers: 25 Location: Zaporizhia In Ukraine since: 2007	HQ: USA Headcount: 200 Presence: UK, India	Video
	Livestream's is the leader of online video streaming. It offers event owners a complete set of hardware and software tools to share their events with a growing community online. More than 40 million viewers each month watch thousands of live events from customers including The New York Times, Facebook, ESPN, SpaceX and Warner Bros. Records. Founded in 2007, Livestream is headquartered in New York with offices in California, the UK, Ukraine, and India. The development offices are located in New York, Bangalore and Zaporizhia. The Ukrainian office is said to be working on video encoding and broadcasting, in particular, products like Livestream Producer (formerly Livestream Procaster) and mobile applications Livestream for iOS and Android platforms.		
	Engineers: 20 Location: Kyiv In Ukraine since 2010	HQ: Belgium Headcount: 50	E-commerce
	Talkable Social Referrals helps brands acquire new customers with endorsements from current customers. By optimizing for higher conversion rates and identifying social influencers, the company has achieved as high as a 58% lift in new sales. The company is headquartered in California with a development office in Kyiv.		
	Engineers: 15 Location: Kyiv In Ukraine since 1993	HQ: Belgium Headcount: 30	Security
	Quadrox is a leading provider of digital video security solutions. Its standards-based WebCCTV and GuardNVR product family provides an efficient and reliable infrastructure by which companies can distribute, update and manage video sources and content over corporate intranets, extranets and the Internet. The company is also the producer of surveillance software QGuard		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: unknown Location: Kyiv In Ukraine since: 2013	HQ: USA Headcount: 160,000 Presence: Worldwide	Aerospace engineering
	Boeing is the world's largest aerospace company and leading manufacturer of commercial jetliners and defense, space and security systems. A top U.S. exporter, the company supports U.S. and allied government customers in 150 countries. Boeing products and tailored services include commercial and military aircraft, satellites, weapons, electronic and defense systems, launch systems, advanced information and communication systems, and performance-based logistics and training. The company is said to have launched an R&D center in Kyiv, Ukraine moving it from Moscow, Russia. It is not clear how many engineers are currently employed there but the office is said to be focused on corporate design work.		
	Engineers: ~20 Location: Kyiv In Ukraine since: 2002	HQ: USA Headcount: 120 Presence: Spain, USA, Germany	Software
	ControlPay is a leading European freight audit solution provider that aligns data, rates, issues and invoices for both carriers and shippers. The company's clients are multinational firms around the world. It's Kyiv office of around 90 people employs engineers, QA specialties as well as invoice auditors.		
	Engineers: 10 Location: Kherson In Ukraine since 2011	HQ: USA, Canada Headcount: 65	Semantic analysis
	Semantria LLC, founded in 2011, is a software-as-a-service and services company specializing in cloud-based text and sentiment analysis. Semantria delivers a quick and easy way to unlock meaningful insight from large amounts of unstructured text. Together with its Kherson R&D office, in 2014 the company was acquired by Lexalytics, the leader in text analytics software solutions, providing entity extraction, sentiment analysis, document summarization and thematic extraction for today's businesses. The R&D office in Kherson currently has ten engineers.		
	Engineers: 15 Location: Dnipropetrovsk In Ukraine since 1999	HQ: USA Headcount: 40	Financial
	Imagineer Technology Group, Inc. (ITG) is a New York City-based software company focused on providing flexible and scalable solutions to asset managers and allocators. The company assists alternative asset managers in the areas of hedge fund due diligence, client relationship management, web reporting and website design. The products of the company include Clienteer, an investor relations CRM software; WebVision, a web platform for online client reporting, and FundInsight, a web platform for fund allocators to manage their research and due diligence on fund managers, document management, performance analytics and portfolio management. The company has an R&D center in Dnipropetrovsk.		

MAIN R&D CENTERS OF INTERNATIONAL FIRMS

Company	Company profile		Industry
	In Ukraine	Globally	
	Engineers: <10 Location: Odessa In Ukraine since 2013	HQ: USA Headcount: 80 Presence: Worldwide reseller network	Video, Hardware
	Teradek is a Vitec Group brand company that manufactures wireless video devices for remote video capture, live ENG backhaul, real-time monitoring, proxy recording and webcasting. For complex IP video systems, Teradek's cloud-based workflow management platform allows users to remotely operate a fleet of Teradek encoders in real-time from anywhere in the world. Some of Teradek's clients include: SpaceX, NASA, NBC, ABC, NASCAR, MLB, NFL, New York Times and others. With headquarters in Irvine, CA, the company has a worldwide reseller network and a development office in Odessa that was opened in 2013. The Ukrainian office is working on creating software for company's video streaming solutions.		
	Engineers: 40 Location: Dnipropetrovsk, Kyiv	HQ: USA Headcount: ~ 150 Founded: 2009	Web technologies
	Smartling's global fluency platform is a global content platform that enables brands to translate content as it's created. It was founded by a Ukrainian-born US entrepreneur Andrey Akselrod. Smartling works with such brands as British Airways, InterContinental Hotels Group, Uber, AdRoll, Shinola, Spotify, Pinterest, Hasbro and SurveyMonkey. Backed by such venture capital funds as Venrock, Tenaya Capital and Iconiq Capital, the company aims to help ambitious brands to achieve a more dominant global position.		
	Engineers: 40 Location: Dnipropetrovsk, Kyiv	HQ: USA Headcount: ~ 150 Founded: 2009	Web technologies
	Eccentex delivers Case Management solutions using AppBase, its Dynamic Case Management (DCM) Platform-as-a-Service (PaaS) application. Dynamic Case Management solutions allow business to reduce risk, increase efficiency and improve customer service. The company has an R&D office in Kyiv, which it moved from Kramatorsk, a war-torn area in Eastern Ukraine.		
	Engineers: 85 Location: Kharkiv, Lviv	HQ: USA Headcount: 100 Presence: Bulgaria, Italy, Vietnam	Software development
	Founded by Matt Brown, a serial entrepreneur with a 20+ year track record in Silicon Valley, Waverley is one of not-so-many companies that have originally been established in the US, and later on made a conscious decision to build presence in Ukraine. The company specializes in IoT, home security and automation, social robotics, and mobile. Among its clients are Toyota, Dun & Bradstreet, American Express, Seagate, Vodafone, Nespresso, Groupon, Mozilla, Tripit, Swisscom, and others.		

MERGERS AND ACQUISITIONS INVOLVING UKRAINIAN SOFTWARE R&D COMPANIES

Target	Acquiring company	Acquisition amount	Date	Description
Ericpol (Lviv)	Ericsson (Sweden)	Undisclosed	October, 2015	Ericsson has acquired Ukrainian-Polish Ericpol, thus getting an R&D center in Lviv. The acquisition was announced in October 2015 and is expected to be completed in the first half of 2016
Maxymiser (Dnipropetrovsk, Kharkiv)	Oracle (USA)	Undisclosed	August, 2015	Maxymiser's cloud software is to be integrated into Oracle's marketing cloud
StrikeAd (Kyiv)	Sizmek (USA)	Estimated \$11.7m	May, 2015	StrikeAd's dedicated mobile advertising demand side platform is expected to be fully integrated with Sizmek's open ad management platform
TOA Technologies (Kharkiv)	Oracle (USA)	Undisclosed	September, 2014	TOA cloud customer service has been integrated into Oracle cloud solution
Slice (Odessa)	Rakuten (Japan)	Undisclosed	August, 2014	Slice's mobile app provided Rakuten with technology to analyze users' spending patterns and delivery choices
Semantria (Kherson)	Lexalytics (USA)	Estimated \$10m	July, 1014	Acquired company
The Frayman Group (TFG) (Kyiv)	ntapp (USA)	Undisclosed	April, 2014	With the acquisition of TFG, Intapp further extends its global leader position in legal software market
Playtika (Kyiv, Dnipropetrovsk, Vinnytsia)	Harrah's , a casino brand of the Caesars Entertainment Corporation (USA)	Estimated \$85m for 51% stake	May, 2011	Playtika is said to be acquired for its success with Slotomania, a slot machine simulation, and Farkle Pro, a dice game

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